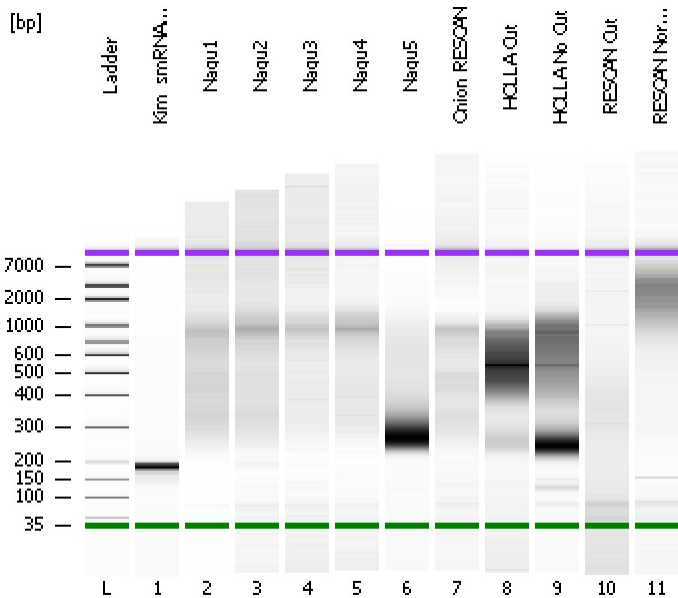


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2012-06-27\2012-06-27_007.xad

Created: 6/27/2012 4:49:13 PM
Modified: 6/27/2012 5:31:22 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

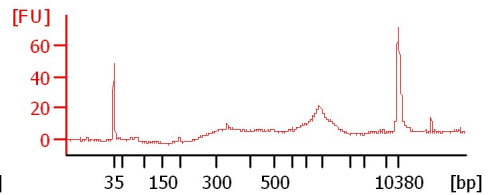
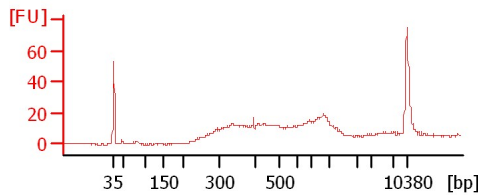
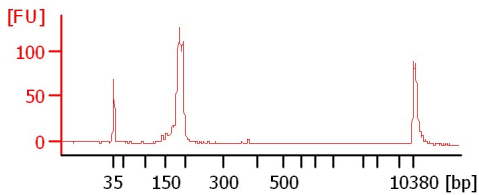
Chip Information:

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

Kim_smRNA_lib

Nagu1

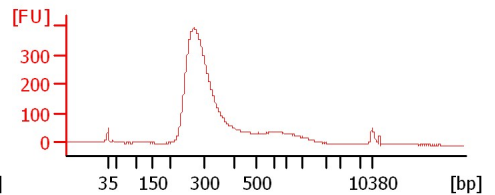
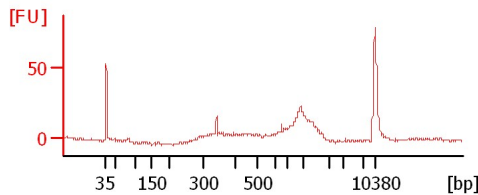
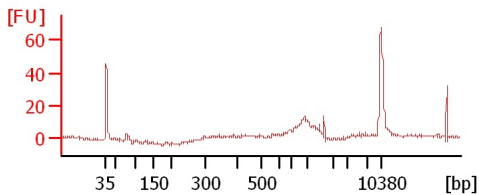
Nagu2



Nagu3

Nagu4

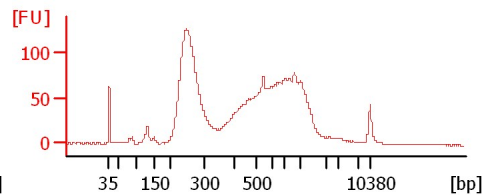
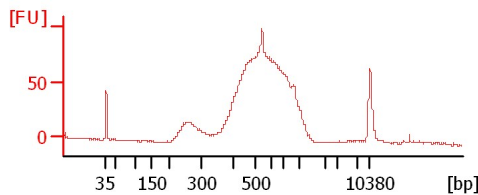
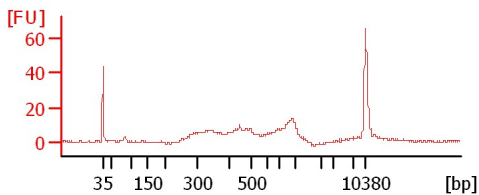
Nagu5



Onion RESCAN

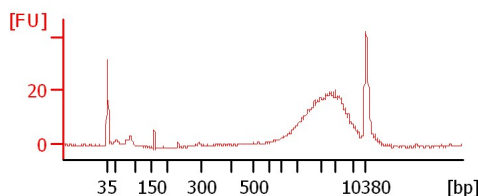
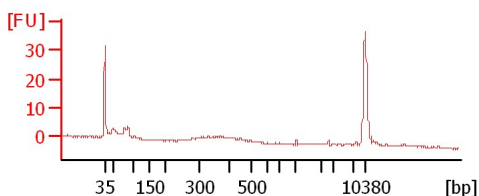
HOLLA Cut

HOLLA No Cut



RESCAN Cut

RESCAN Normal



Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2012-06-27\2012-06-27_007.xad

Created: 6/27/2012 4:49:13 PM
Modified: 6/27/2012 5:31:22 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
Kim_smRNA_lib		<input type="checkbox"/>	✓			
Nagu1		<input type="checkbox"/>	✓			
Nagu2		<input type="checkbox"/>	✓			
Nagu3		<input type="checkbox"/>	✓			
Nagu4		<input type="checkbox"/>	✓			
Nagu5		<input type="checkbox"/>	✓			
Onion RESCAN		<input type="checkbox"/>	✓			
HOLLA Cut		<input type="checkbox"/>	✓			
HOLLA No Cut		<input type="checkbox"/>	✓			
RESCAN Cut		<input type="checkbox"/>	✓			
RESCAN Normal		<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\2012-06-27\2012-06-27_007.xad

Created: 6/27/2012 4:49:13 PM
Modified: 6/27/2012 5:31:22 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

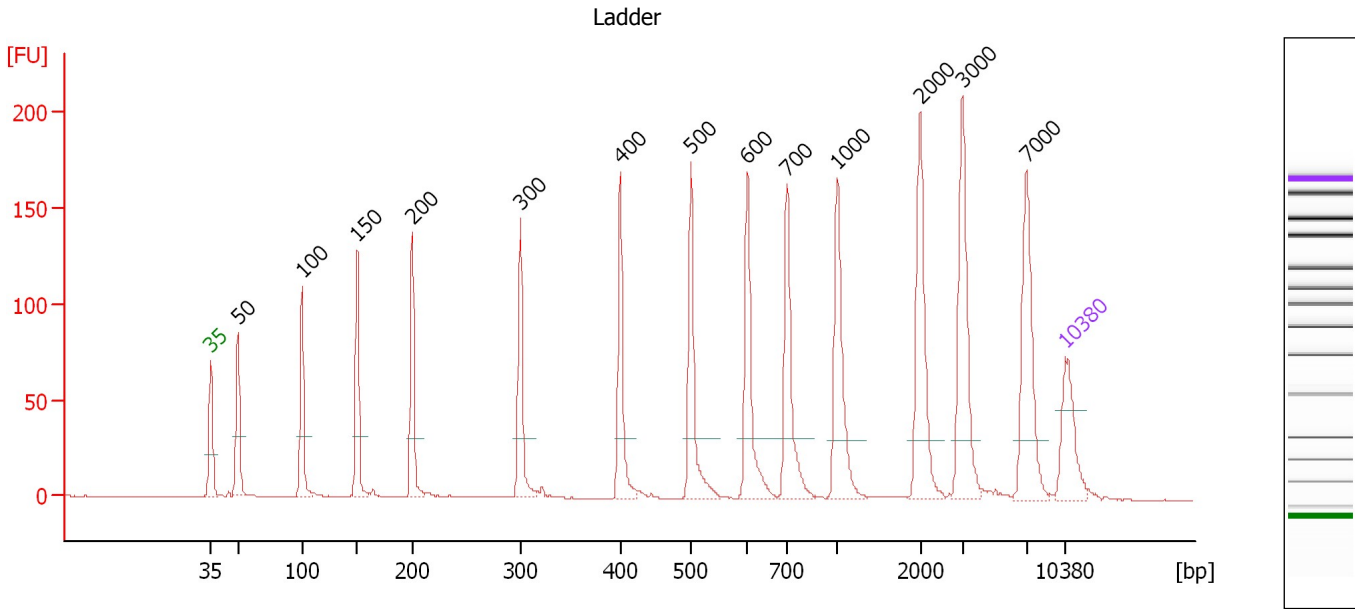
Ladder

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:\...ents and Settings\Bioanalyzer\2012-06-27\2012-06-27_007.xad

Created: 6/27/2012 4:49:13 PM
 Modified: 6/27/2012 5:31:22 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.1

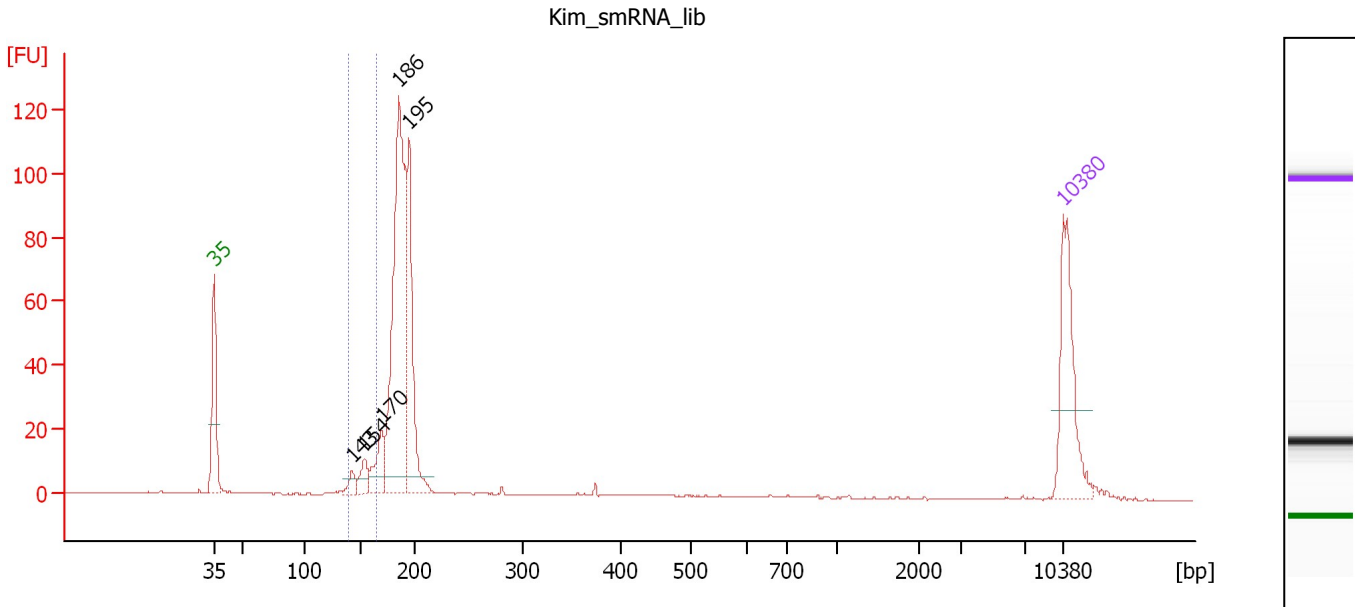
Peak table for Ladder

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\2012-06-27\2012-06-27_007.xad

Created: 6/27/2012 4:49:13 PM
 Modified: 6/27/2012 5:31:22 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : Kim_smRNA lib

Number of peaks found: 5 Corr. Area 1: 32.1
 Noise: 0.1

Peak table for sample 1 : Kim_smRNA lib

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	143	13.91	147.3	
3	154	20.56	201.8	
4	170	42.44	378.3	
5	186	330.23	2,695.5	
6	195	154.89	1,201.0	
7	10,380	75.00	10.9	Upper Marker

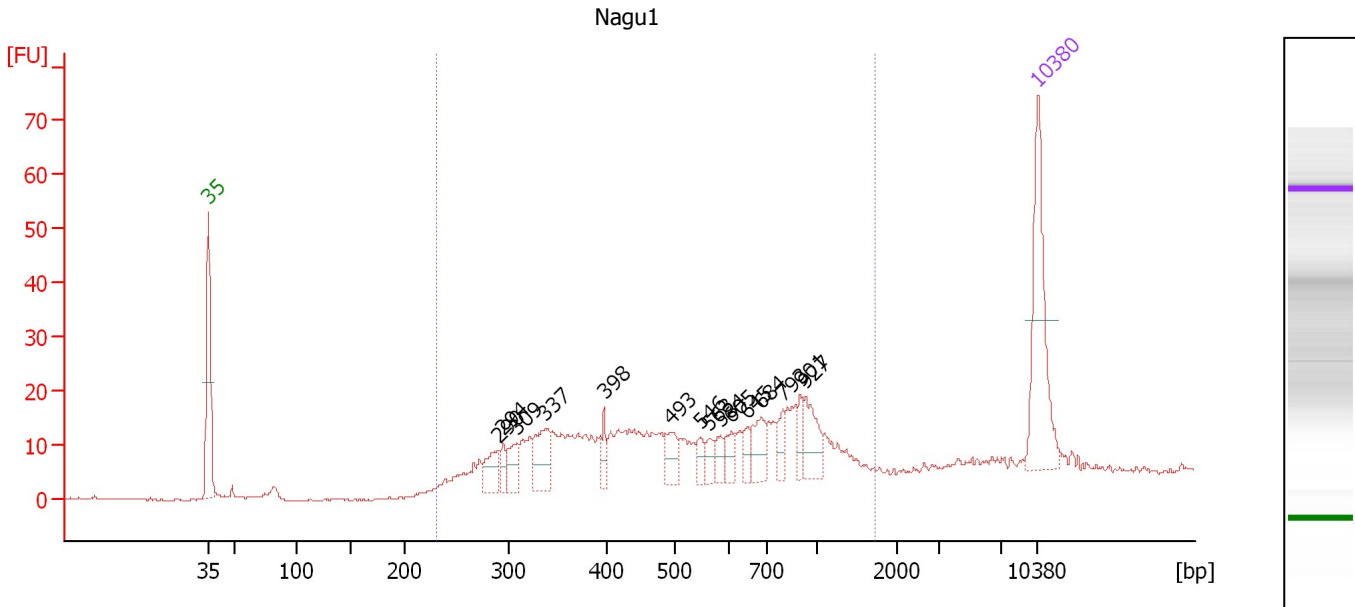
Region table for sample 1 : Kim_smRNA lib

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
140	165	153	458.1	46.28	32.1	7	4.7	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-06-27\2012-06-27_007.xad

Created: 6/27/2012 4:49:13 PM
 Modified: 6/27/2012 5:31:22 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : Nagu1

Number of peaks found: 15 Corr. Area 1: 379.0
 Noise: 0.2

Peak table for sample 2 : Nagu1

Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	290	26.50	138.5	
3	294	12.84	66.1	
4	309	22.04	108.2	
5	337	39.93	179.4	
6	398	13.22	50.4	
7	493	20.60	63.3	
8	546	10.47	29.1	
9	563	10.91	29.4	
10	584	11.54	30.0	
11	605	12.64	31.7	
12	645	10.33	24.3	
13	684	23.92	53.0	
14	793	12.09	23.1	
15	901	12.92	21.7	
16	927	28.68	46.9	
17	10,380	75.00	10.9	Upper Marker

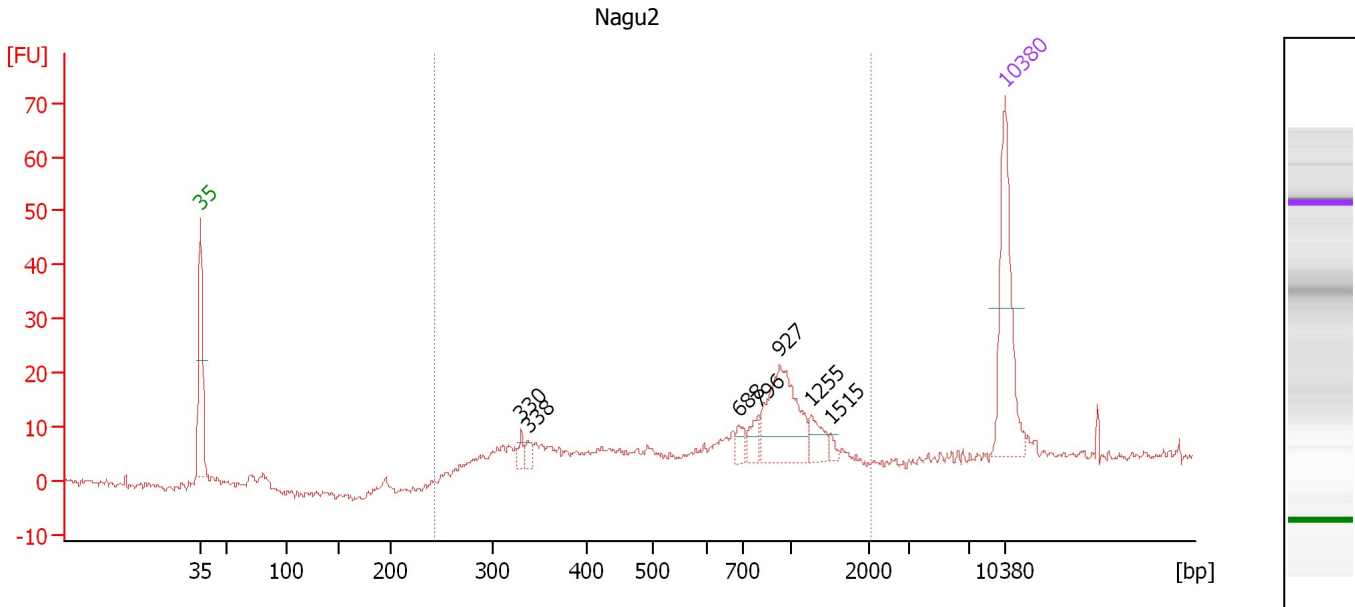
Region table for sample 2 : Nagu1

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/µl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
231	1,714	581	1,975.9	581.85	379.0	92	48.3	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-06-27\2012-06-27_007.xad

Created: 6/27/2012 4:49:13 PM
 Modified: 6/27/2012 5:31:22 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : Nagu2

Number of peaks found: 7 Corr. Area 1: 222.8
 Noise: 0.7

Peak table for sample 3 : Nagu2

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	330	7.80	35.8	
3	338	8.53	38.3	
4	688	9.66	21.3	
5	796	13.77	26.2	
6	927	79.81	130.4	
7	1,255	16.27	19.6	
8	1,515	4.29	4.3	
9	10,380	75.00	10.9	Upper Marker

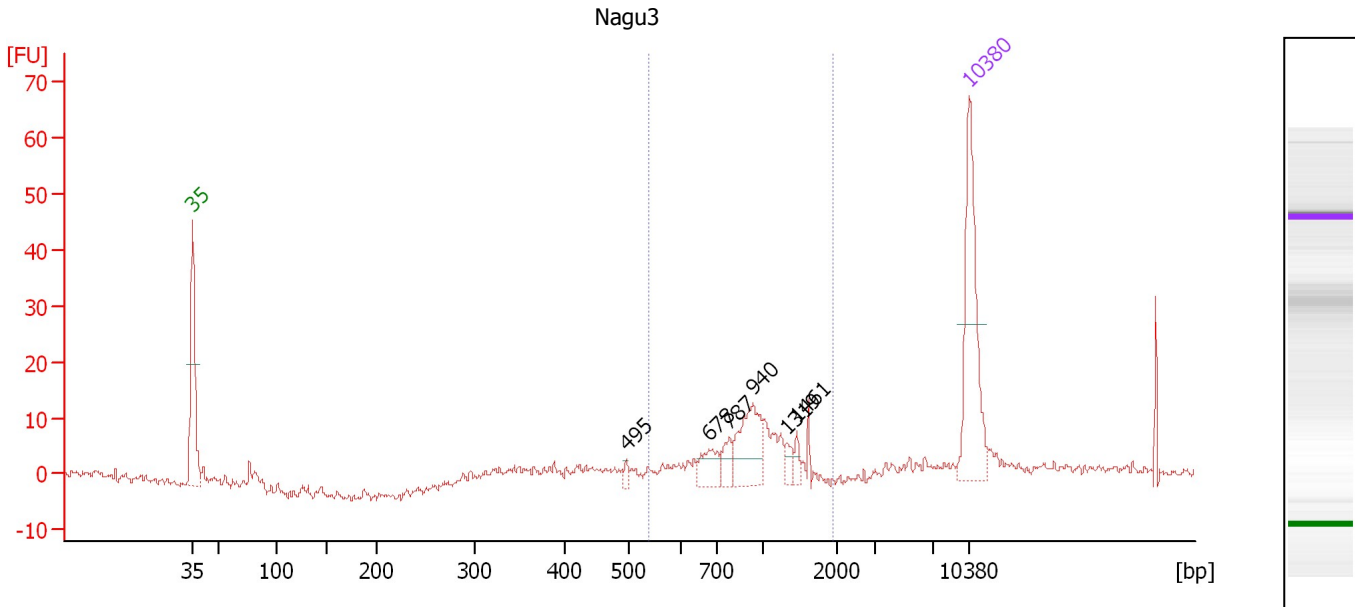
Region table for sample 3 : Nagu2

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
243	2,067	748	961.4	334.61	222.8	90	49.1	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-06-27\2012-06-27_007.xad

Created: 6/27/2012 4:49:13 PM
 Modified: 6/27/2012 5:31:22 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : Nagu3

Number of peaks found: 6 Corr. Area 1: 69.3
 Noise: 0.7

Peak table for sample 4 : Nagu3

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	495	4.64	14.2	
3	678	19.36	43.3	
4	787	12.82	24.7	
5	940	44.34	71.5	
6	1,319	6.76	7.8	
7	1,461	5.19	5.4	
8	10,380	75.00	10.9	Upper Marker

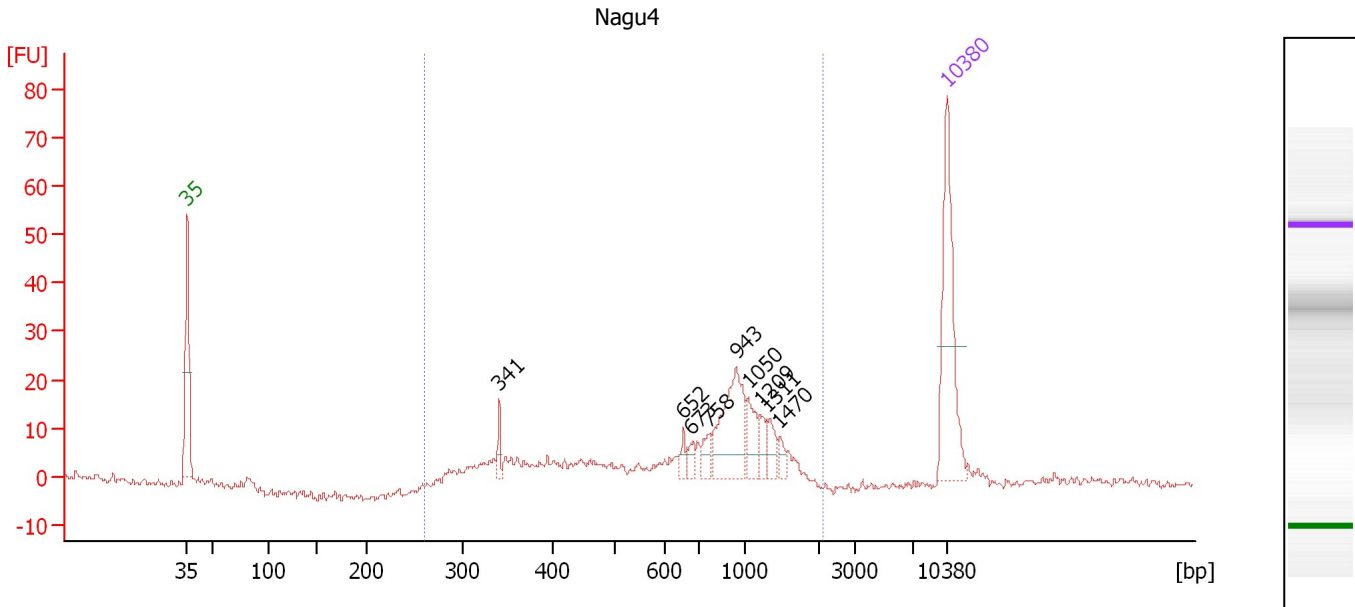
Region table for sample 4 : Nagu3

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
538	1,930	986	149.1	90.05	69.3	71	26.5	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-06-27\2012-06-27_007.xad

Created: 6/27/2012 4:49:13 PM
 Modified: 6/27/2012 5:31:22 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : Nagu4

Number of peaks found: 9 Corr. Area 1: 221.1
 Noise: 0.9

Peak table for sample 5 : Nagu4

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	341	10.72	47.6	
3	652	6.52	15.2	
4	673	8.18	18.4	
5	758	9.67	19.3	
6	943	63.20	101.6	
7	1,050	19.92	28.8	
8	1,209	9.33	11.7	
9	1,311	11.89	13.7	
10	1,470	6.05	6.2	
11	10,380	75.00	10.9	Upper Marker

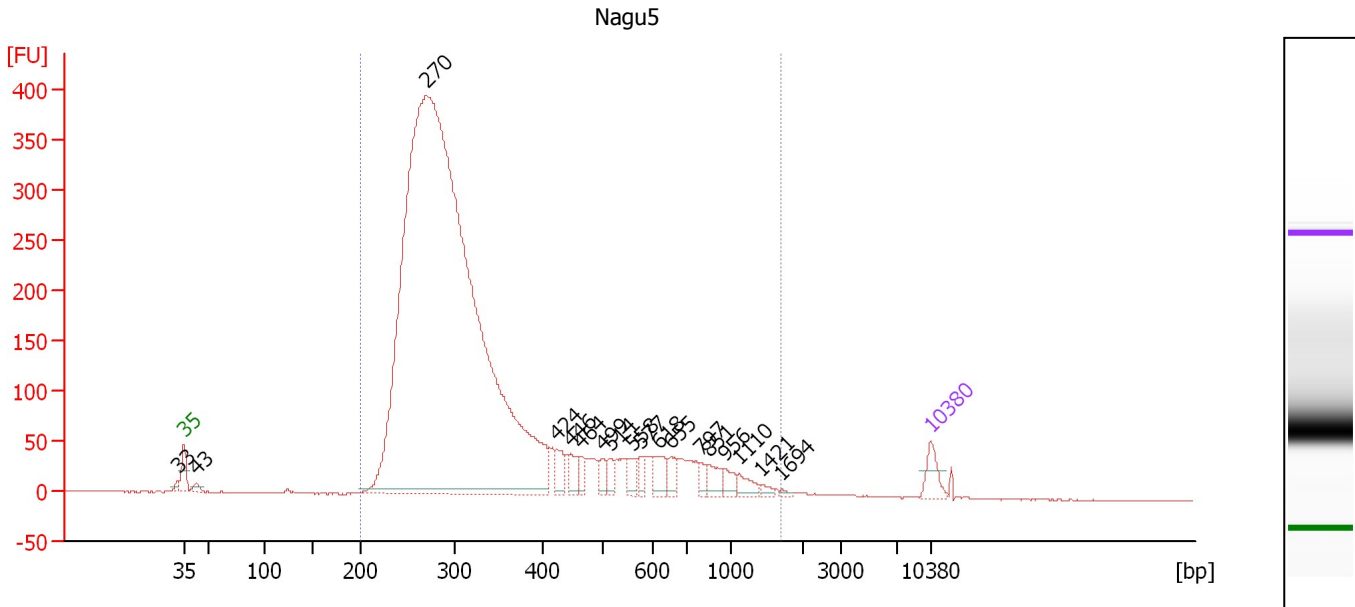
Region table for sample 5 : Nagu4

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
261	2,146	827	696.8	277.10	221.1	96	44.3	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-06-27\2012-06-27_007.xad

Created: 6/27/2012 4:49:13 PM
 Modified: 6/27/2012 5:31:22 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : Nagu5

Number of peaks found: 18 Corr. Area 1: 5,370.6
 Noise: 0.6

Peak table for sample 6 : Nagu5

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	33	0.00	0.0	
2	35	125.00	5,411.3	Lower Marker
3	43	35.45	1,261.1	
4	270	9,477.52	53,210.9	
5	424	91.57	327.4	
6	446	82.14	278.8	
7	464	53.32	174.2	
8	499	52.29	158.7	
9	514	48.12	141.8	
10	558	70.91	192.4	
11	577	46.87	123.1	
12	618	95.05	233.1	
13	655	59.13	136.8	
14	797	39.35	74.8	
15	851	70.70	125.8	
16	956	50.79	80.5	
17	1,110	55.44	75.7	
18	1,421	17.81	19.0	
19	1,694	9.72	8.7	
20	10,380	75.00	10.9	Upper Marker

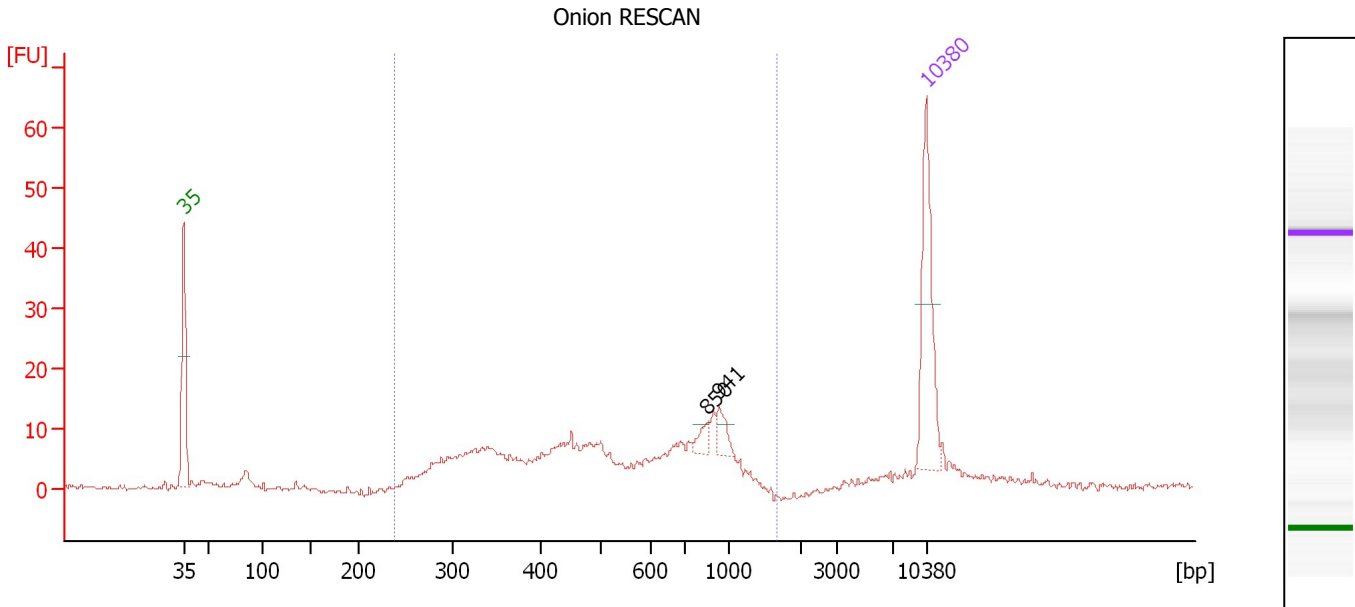
Region table for sample 6 : Nagu5

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	1,696	361	51,006.4	10,327.15	5,370.6	99	50.7	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-06-27\2012-06-27_007.xad

Created: 6/27/2012 4:49:13 PM
 Modified: 6/27/2012 5:31:22 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : Onion RESCAN

Number of peaks found: 2 Corr. Area 1: 209.6
 Noise: 0.5

Peak table for sample 7 : Onion RESCAN

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	850	10.14	18.1	
3	941	13.78	22.2	
4	10,380	75.00	10.9	Upper Marker

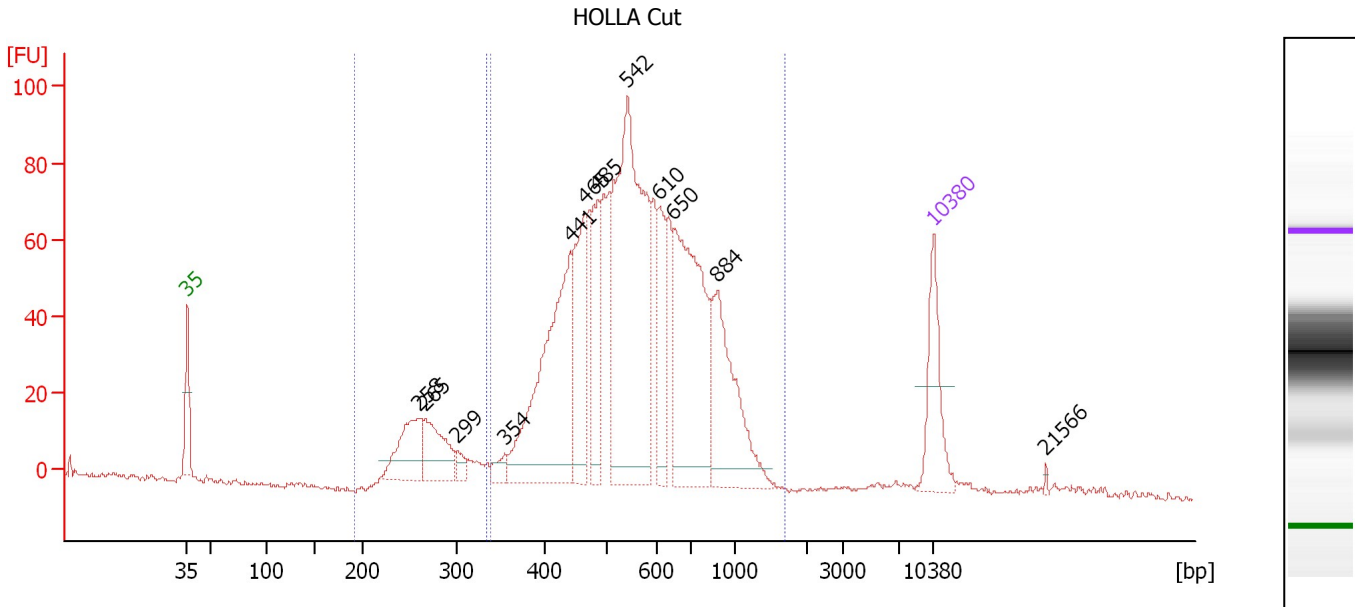
Region table for sample 7 : Onion RESCAN

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
238	1,666	573	1,289.8	385.12	209.6	90	42.6	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-06-27\2012-06-27_007.xad

Created: 6/27/2012 4:49:13 PM
 Modified: 6/27/2012 5:31:22 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : HOLLA Cut

Number of peaks found: 12 Corr. Area 1: 147.1
 Noise: 0.6 Corr. Area 2: 1,476.4

Peak table for sample 8 : HOLLA Cut

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	258	102.70	603.1	
3	265	92.21	526.5	
4	299	15.67	79.3	
5	354	19.05	81.6	
6	441	337.05	1,157.7	
7	465	161.37	526.3	
8	485	113.14	353.2	
9	542	494.86	1,382.8	
10	610	84.25	209.2	
11	650	311.17	725.0	
12	884	176.13	301.9	
13	10,380	75.00	10.9	Upper Marker
14	21,566	0.00	0.0	

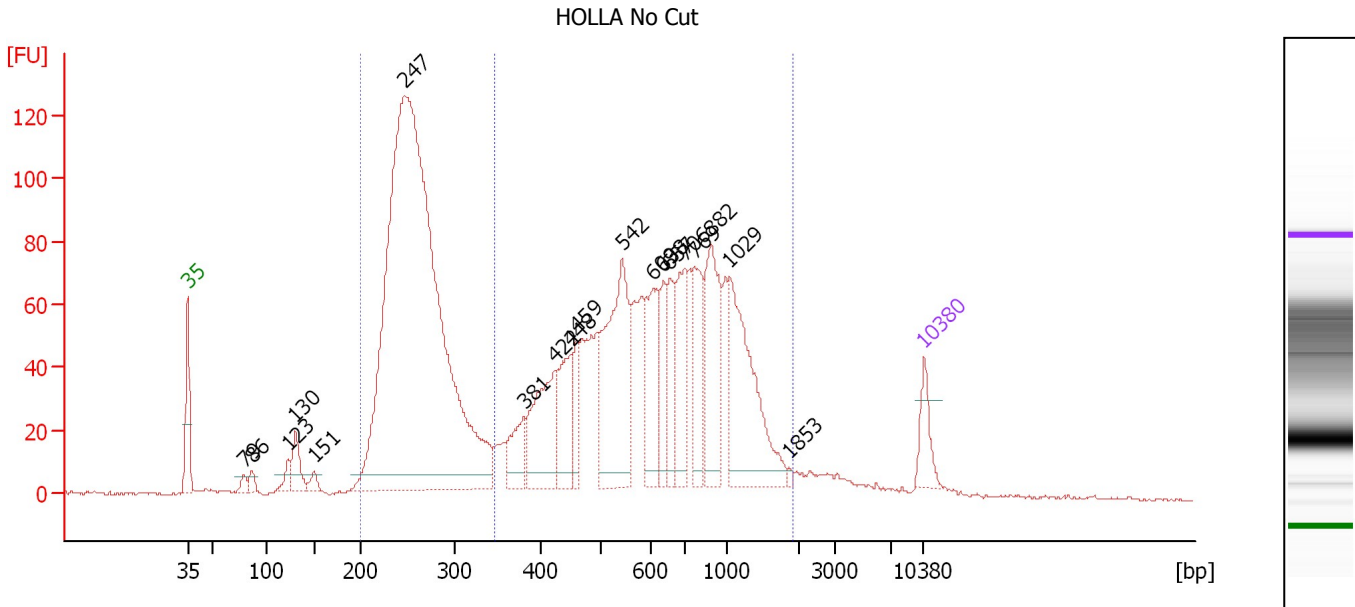
Region table for sample 8 : HOLLA Cut

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
192	337	272	1,365.2	243.08	147.1	9	10.0	Blue
334	1,691	595	5,585.5	2,000.49	1,476.4	90	29.7	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-06-27\2012-06-27_007.xad

Created: 6/27/2012 4:49:13 PM
 Modified: 6/27/2012 5:31:22 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : HOLLA No Cut

Number of peaks found: 19 Corr. Area 1: 1,127.4
 Noise: 0.6 Corr. Area 2: 1,567.1

Peak table for sample 9 : HOLLA No Cut

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	79	29.06	556.5	
3	86	35.33	619.8	
4	123	52.77	650.0	
5	130	110.99	1,290.3	
6	151	34.00	342.0	
7	247	3,787.73	23,280.4	
8	381	131.55	522.9	
9	422	327.65	1,175.2	
10	448	195.77	662.2	
11	459	104.65	345.2	
12	542	546.90	1,527.5	
13	609	257.67	641.5	
14	638	134.51	319.3	
15	657	136.99	315.8	
16	706	223.49	479.4	
17	769	217.83	429.4	
18	882	313.38	538.2	
19	1,029	447.87	659.5	
20	1,853	7.31	6.0	
21	10,380	75.00	10.9	Upper Marker

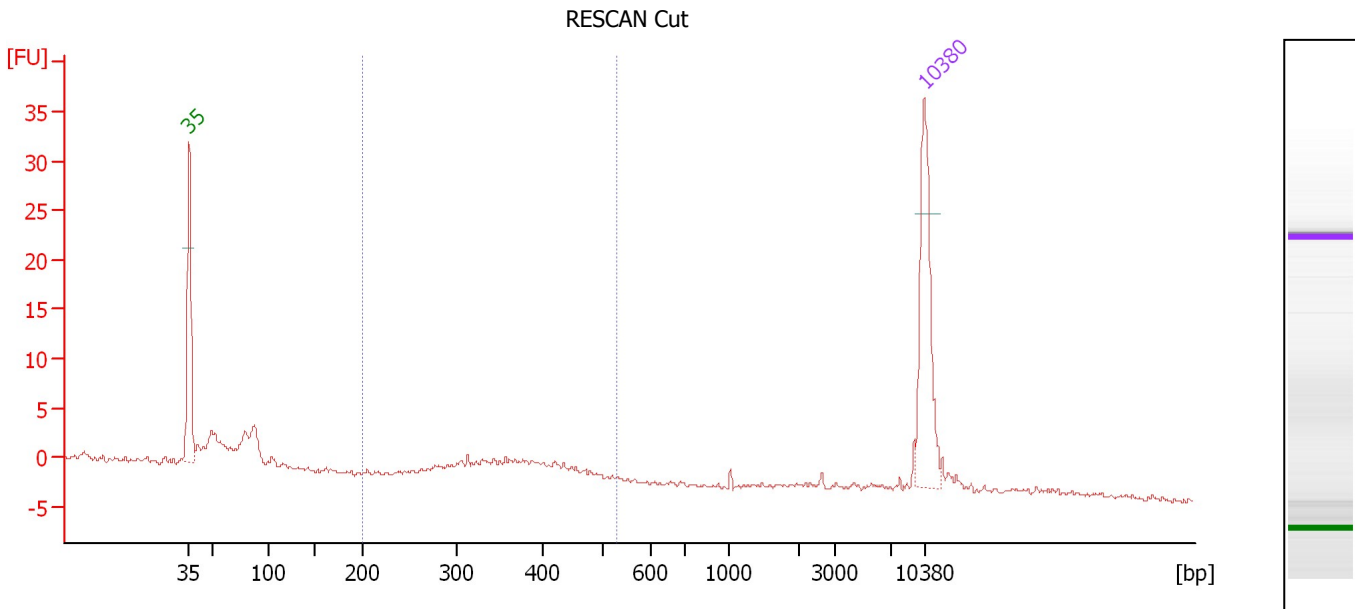
Region table for sample 9 : HOLLA No Cut

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	348	261	22,142.4	3,782.72	1,127.4	39	11.5	Blue
348	1,916	716	10,595.7	4,152.33	1,567.1	55	42.7	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-06-27\2012-06-27_007.xad

Created: 6/27/2012 4:49:13 PM
 Modified: 6/27/2012 5:31:22 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : RESCAN Cut

Number of peaks found: 0 Corr. Area 1: 18.4
 Noise: 0.3

Peak table for sample 10 : RESCAN Cut

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	10,380	75.00	10.9	Upper Marker

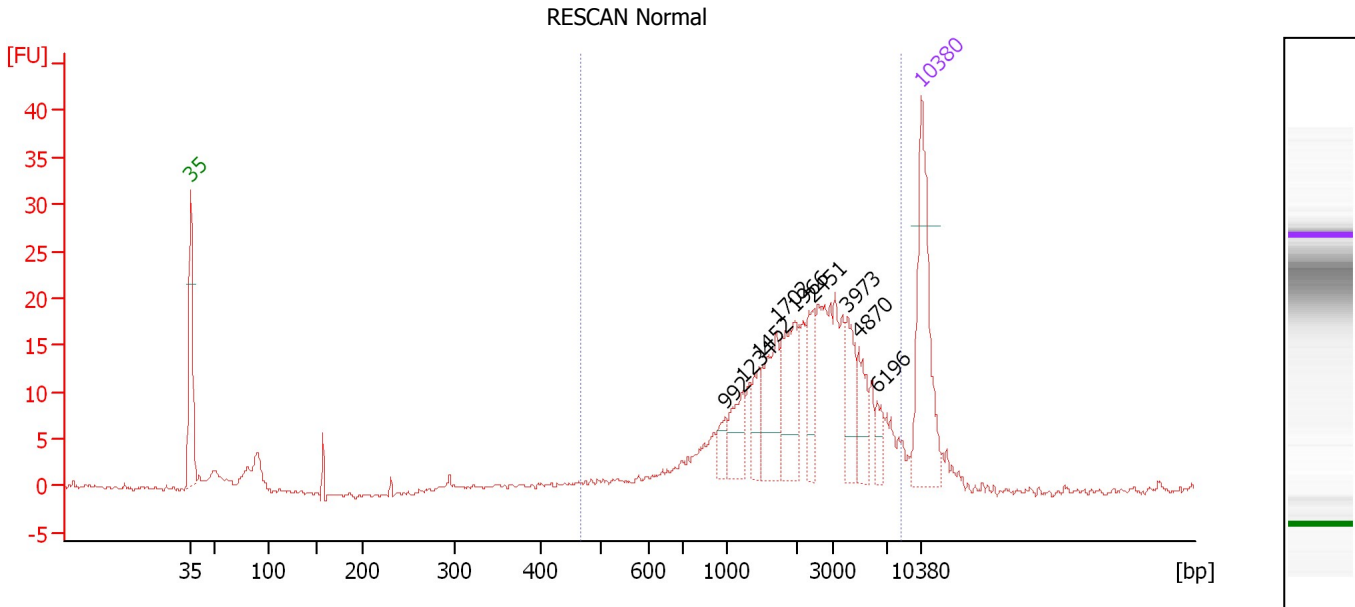
Region table for sample 10 : RESCAN Cut

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	531	371	213.0	50.96	18.4	33	14.0	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-06-27\2012-06-27_007.xad

Created: 6/27/2012 4:49:13 PM
 Modified: 6/27/2012 5:31:22 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : RESCAN Normal

Number of peaks found: 9 Corr. Area 1: 246.8
 Noise: 0.2

Peak table for sample 11 : RESCAN Normal

Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	992	11.19	17.1	
3	1,234	25.02	30.7	
4	1,452	19.28	20.1	
5	1,702	39.65	35.3	
6	1,966	45.86	35.3	
7	2,451	25.96	16.0	
8	3,973	25.78	9.8	
9	4,870	20.14	6.3	
10	6,196	9.53	2.3	
11	10,380	75.00	10.9	Upper Marker

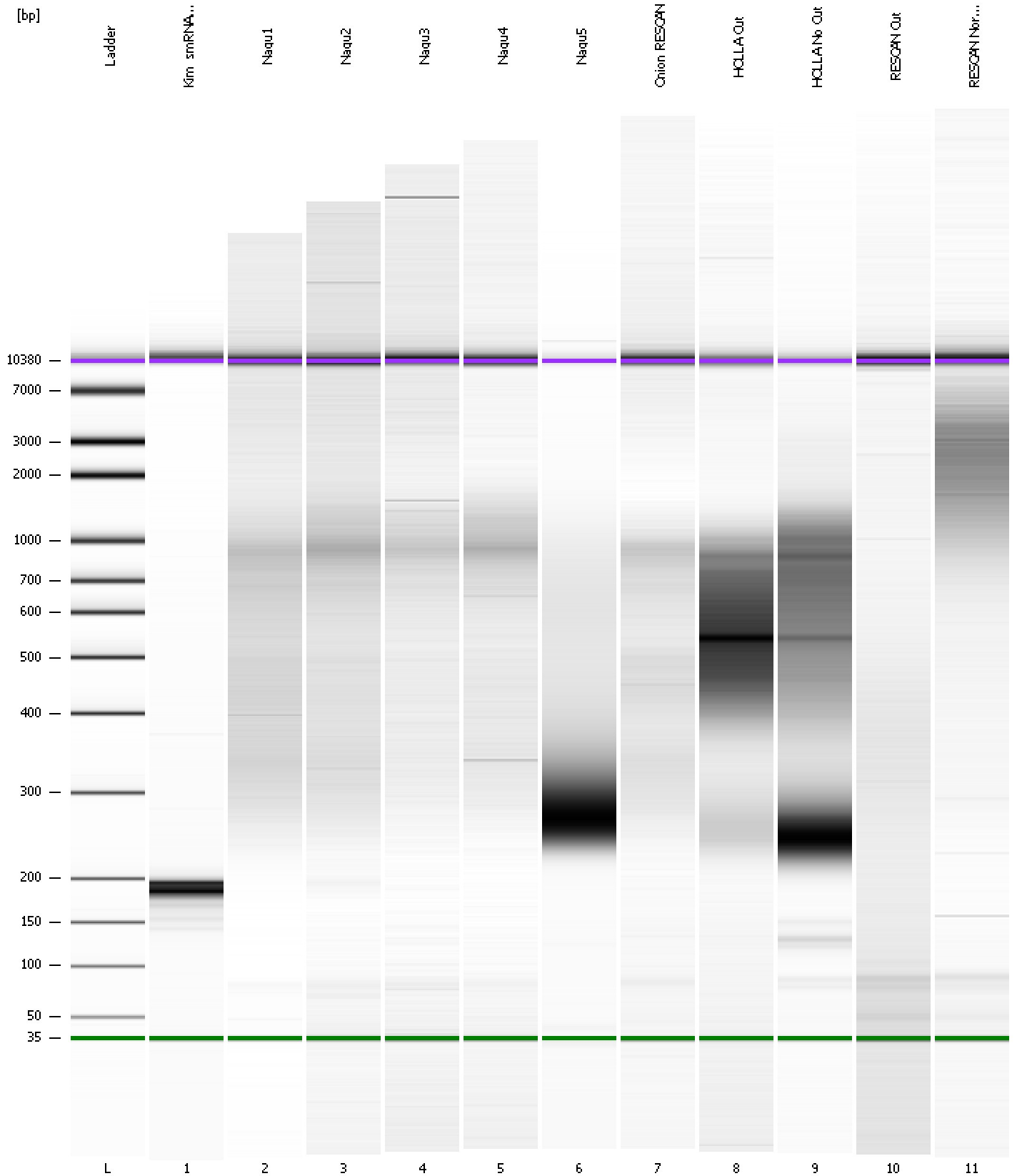
Region table for sample 11 : RESCAN Normal

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/µl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
466	8,242	2,726	363.2	428.22	246.8	91	62.5	Blue

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2012-06-27\2012-06-27_007.xad

Created: 6/27/2012 4:49:13 PM
Modified: 6/27/2012 5:31:22 PM

Gel Image



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-06-27\2012-06-27_007.xad

Created: 6/27/2012 4:49:13 PM
 Modified: 6/27/2012 5:31:22 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		6/27/2012 5:30:32 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2012-06-27\2012-06-27_007.xad)		Instrument	Run		6/27/2012 4:49:18 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		6/27/2012 4:49:18 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		6/27/2012 4:49:18 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		6/27/2012 4:49:18 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		6/27/2012 4:49:18 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		6/27/2012 4:49:18 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		6/27/2012 4:49:18 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1