

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-13\2015-01-13\_003.xad

Created: 1/13/2015 3:17:12 PM  
Modified: 1/13/2015 3:58:27 PM

### Electrophoresis File Run Summary

#### Instrument Information:

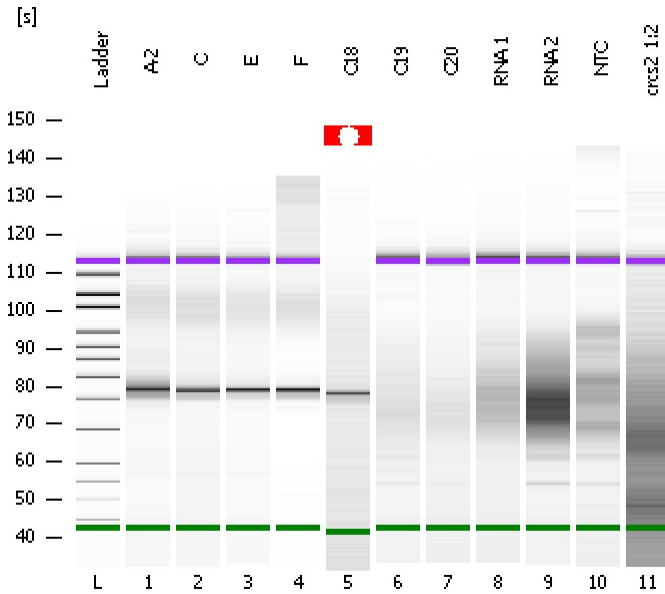
Instrument Name: DE13701086      Firmware: C.01.069  
Serial#: DE13701086      Type: G2938B

#### 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:

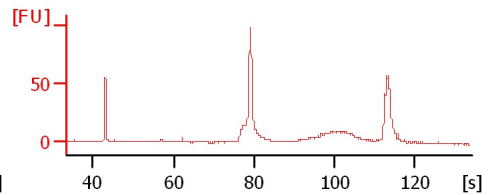
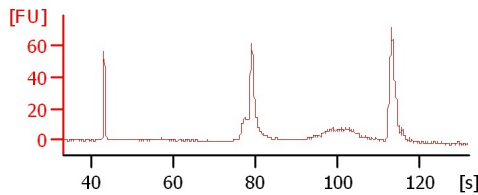
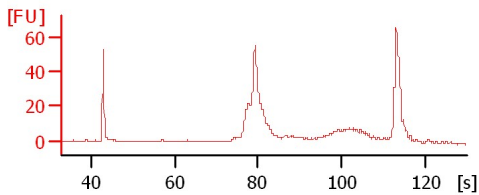
Chip Lot #:      Reagent Kit Lot #:      Chip Comments:



A-2

C

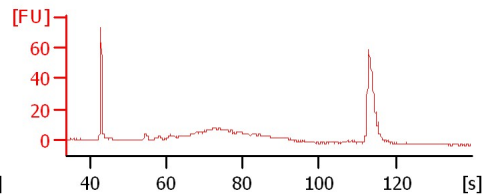
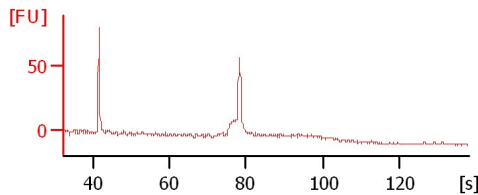
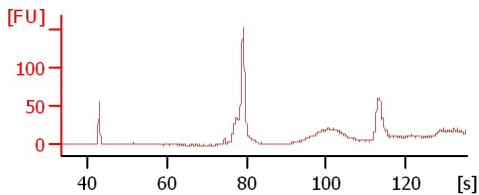
E



F

C18

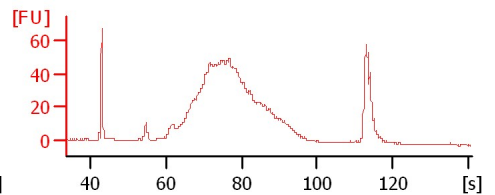
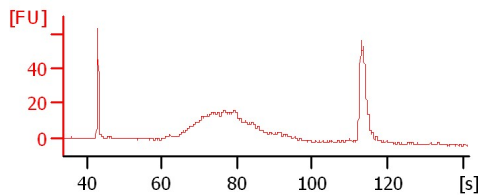
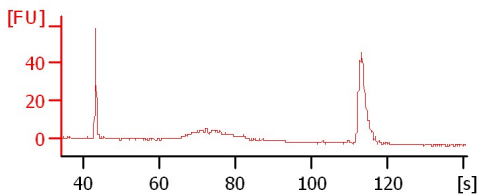
C19



C20

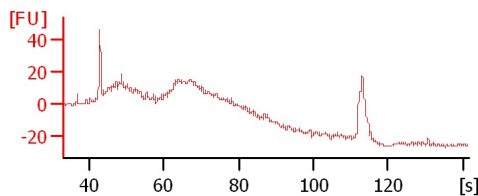
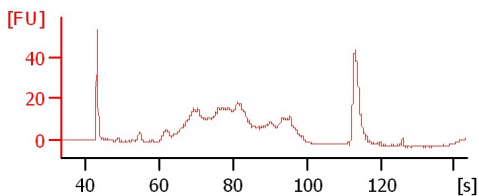
RNA 1

RNA 2



NTC

crcs2 1:2



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**Electrophoresis File Run Summary (Chip Summary)**

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
A-2		<input type="checkbox"/>	✓			
C		<input type="checkbox"/>	✓			
E		<input type="checkbox"/>	✓			
F		<input type="checkbox"/>	✓			
C18		<input type="checkbox"/>	✓			
C19		<input type="checkbox"/>	✓			
C20		<input type="checkbox"/>	✓			
RNA 1		<input type="checkbox"/>	✓			
RNA 2		<input type="checkbox"/>	✓			
NTC		<input type="checkbox"/>	✓			
crcs2 1:2		<input type="checkbox"/>	✓			
Ladder		<input type="checkbox"/>	✓			

**Chip Lot #**

**Reagent Kit Lot #**

**Chip Comments :**

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**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

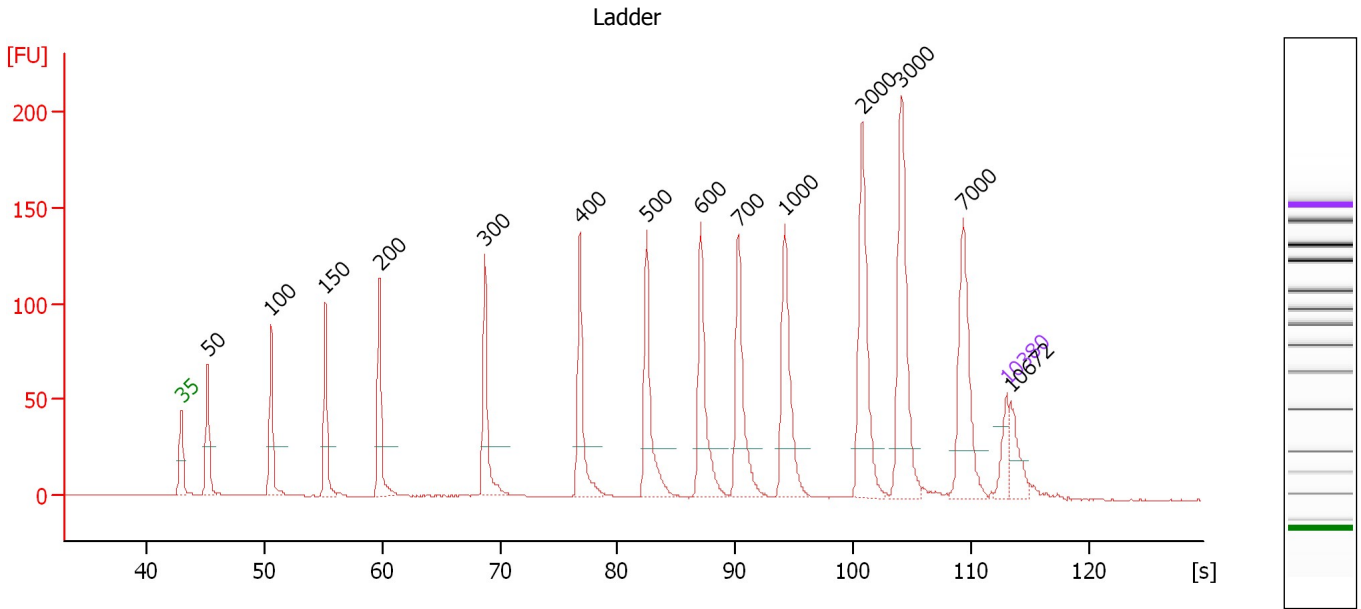
**Ladder**

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

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**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.1

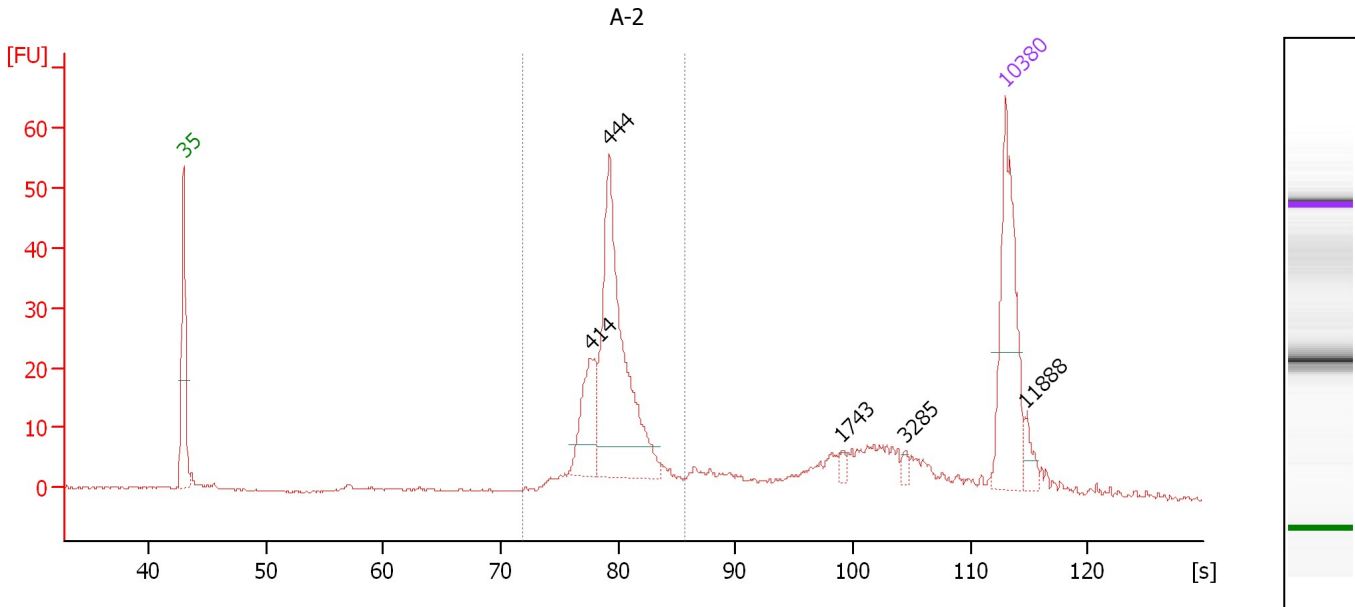
**Peak table for Ladder**

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	45.23
3	100	150.00	2,272.7	Ladder Peak	50.61
4	150	150.00	1,515.2	Ladder Peak	55.21
5	200	150.00	1,136.4	Ladder Peak	59.81
6	300	150.00	757.6	Ladder Peak	68.73
7	400	150.00	568.2	Ladder Peak	76.79
8	500	150.00	454.5	Ladder Peak	82.44
9	600	150.00	378.8	Ladder Peak	87.04
10	700	150.00	324.7	Ladder Peak	90.23
11	1,000	150.00	227.3	Ladder Peak	94.15
12	2,000	150.00	113.6	Ladder Peak	100.75
13	3,000	150.00	75.8	Ladder Peak	104.03
14	7,000	150.00	32.5	Ladder Peak	109.31
15	10,380	75.00	10.9	Upper Marker	113.00
16	10,672	0.00	0.0		113.32

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**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : A-2**

Number of peaks found: 5                      Corr. Area 1: 224.9  
 Noise: 0.2

**Peak table for sample 1 : A-2**

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	414	49.11	179.5		77.61
3	444	176.97	604.4		79.26
4	1,743	3.20	2.8		99.05
5	3,285	3.35	1.5		104.40
6	10,380	75.00	10.9	Upper Marker	113.00
7	11,888	0.00	0.0		114.65

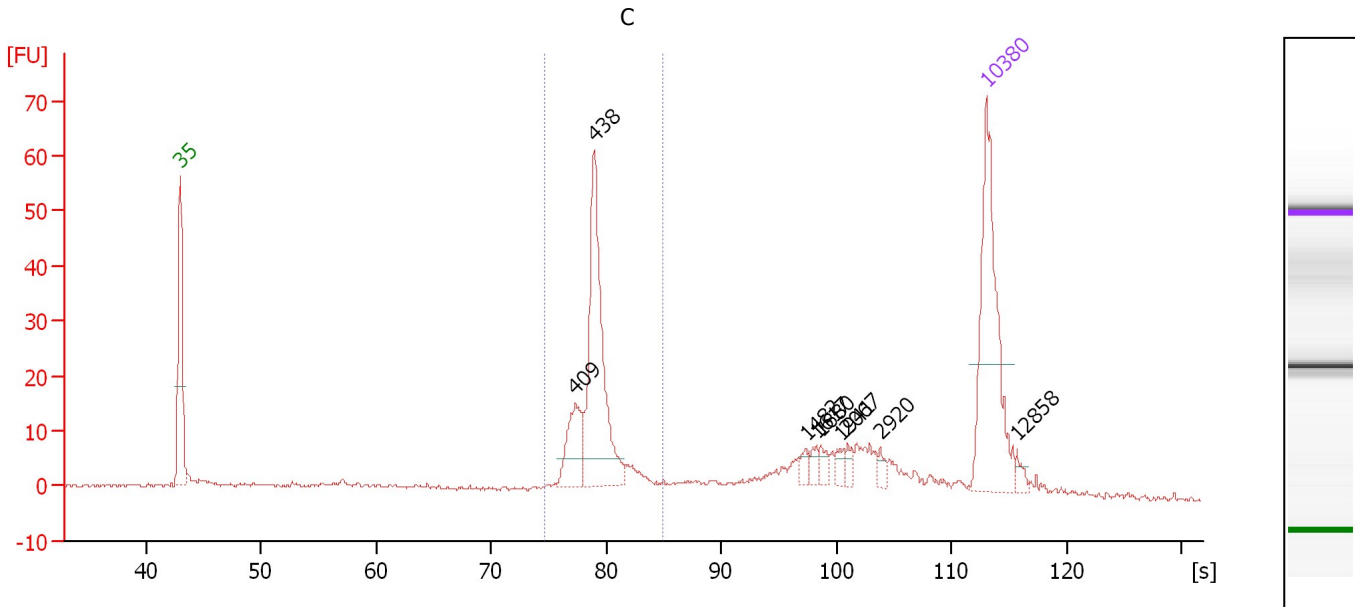
**Region table for sample 1 : A-2**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
340	449	571	224.9	59	8.3	281.46	956.6	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-13\2015-01-13\_003.xad

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**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : C**

Number of peaks found: 9                      Corr. Area 1: 159.1  
 Noise: 0.3

**Peak table for sample 2 : C**

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	409	29.32	108.5		77.32
3	438	107.71	372.3		78.96
4	1,482	4.73	4.8		97.33
5	1,617	4.06	3.8		98.22
6	1,680	4.34	3.9		98.64
7	1,941	4.02	3.1		100.36
8	2,067	4.18	3.1		100.97
9	2,920	3.47	1.8		103.77
10	10,380	75.00	10.9	Upper Marker	113.00
11	12,858	0.00	0.0		115.70

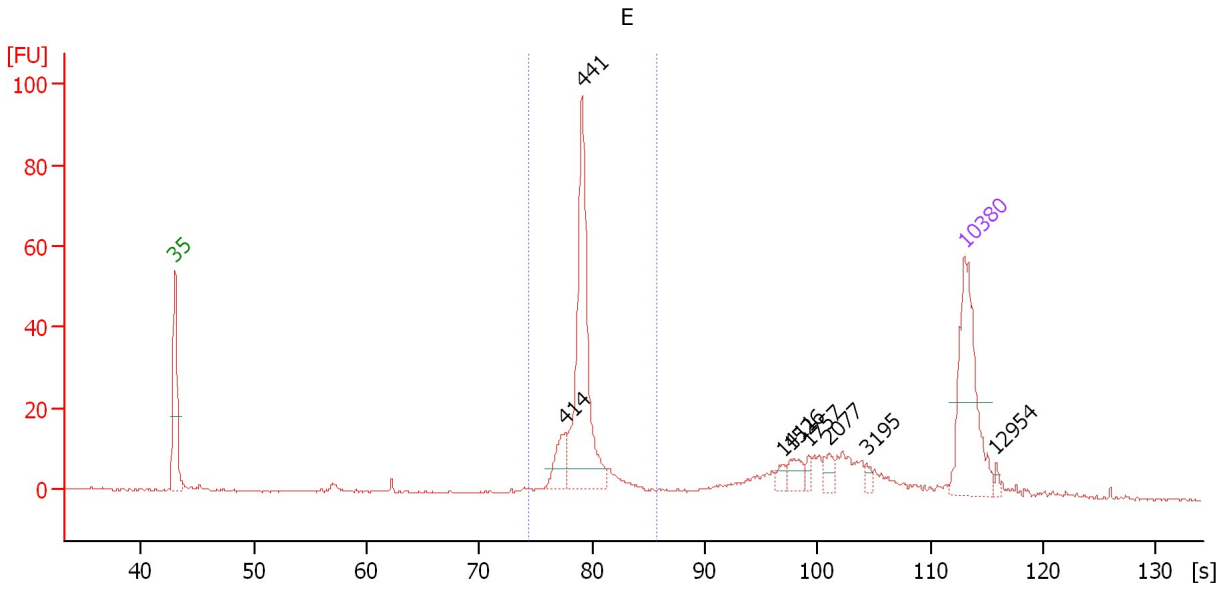
**Region table for sample 2 : C**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
373	442	554	159.1	46	6.8	164.39	566.2	Blue

Assay Class: High Sensitivity DNA Assay  
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**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : E**

Number of peaks found: 8                      Corr. Area 1: 187.5  
 Noise: 0.3

**Peak table for sample 3 : E**

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	414	22.89	83.8		77.57
3	441	155.87	535.8		79.10
4	1,411	5.10	5.5		96.86
5	1,526	11.04	11.0		97.62
6	1,757	4.45	3.8		99.14
7	2,077	7.82	5.7		101.00
8	3,195	3.69	1.7		104.29
9	10,380	75.00	10.9	Upper Marker	113.00
10	12,954	0.00	0.0		115.81

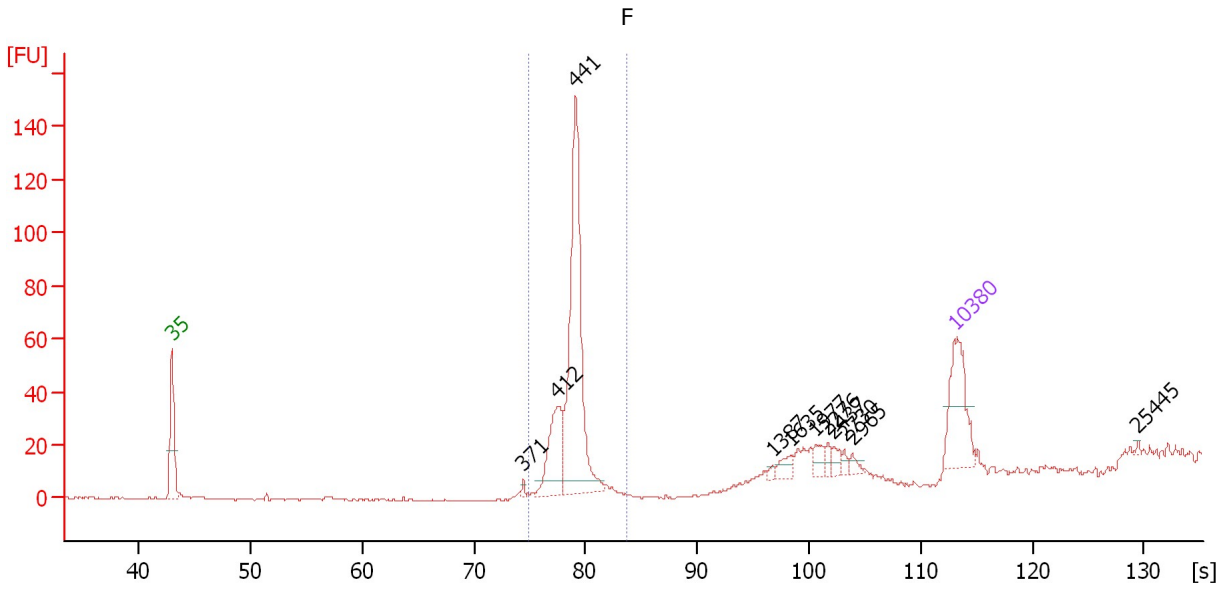
**Region table for sample 3 : E**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
370	443	571	187.5	53	6.4	211.03	724.2	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-13\2015-01-13\_003.xad

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**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : F**

Number of peaks found: 11                      Corr. Area 1: 250.3  
 Noise: 0.2

**Peak table for sample 4 : F**

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	371	4.41	18.0		74.44
3	412	90.16	331.6		77.47
4	441	318.55	1,094.6		79.11
5	1,387	4.50	4.9		96.70
6	1,635	13.76	12.8		98.34
7	1,977	13.26	10.2		100.60
8	2,276	8.21	5.5		101.65
9	2,437	9.67	6.0		102.18
10	2,730	5.15	2.9		103.14
11	2,965	6.78	3.5		103.91
12	10,380	75.00	10.9	Upper Marker	113.00
13	25,445	0.00	0.0		129.44

**Region table for sample 4 : F**

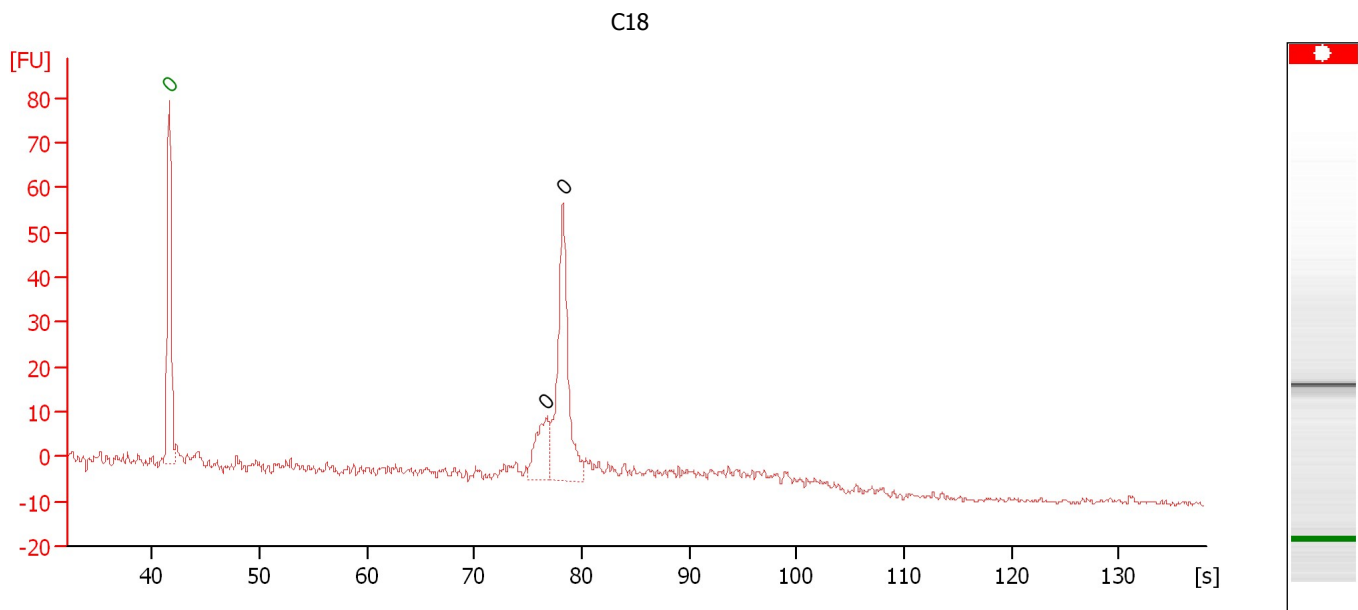
From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
377	435	526	250.3	73	3.5	360.96	1,258.9	Blue



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-13\2015-01-13\_003.xad

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**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : C18**

Number of peaks found: 2                      Noise: 0.6

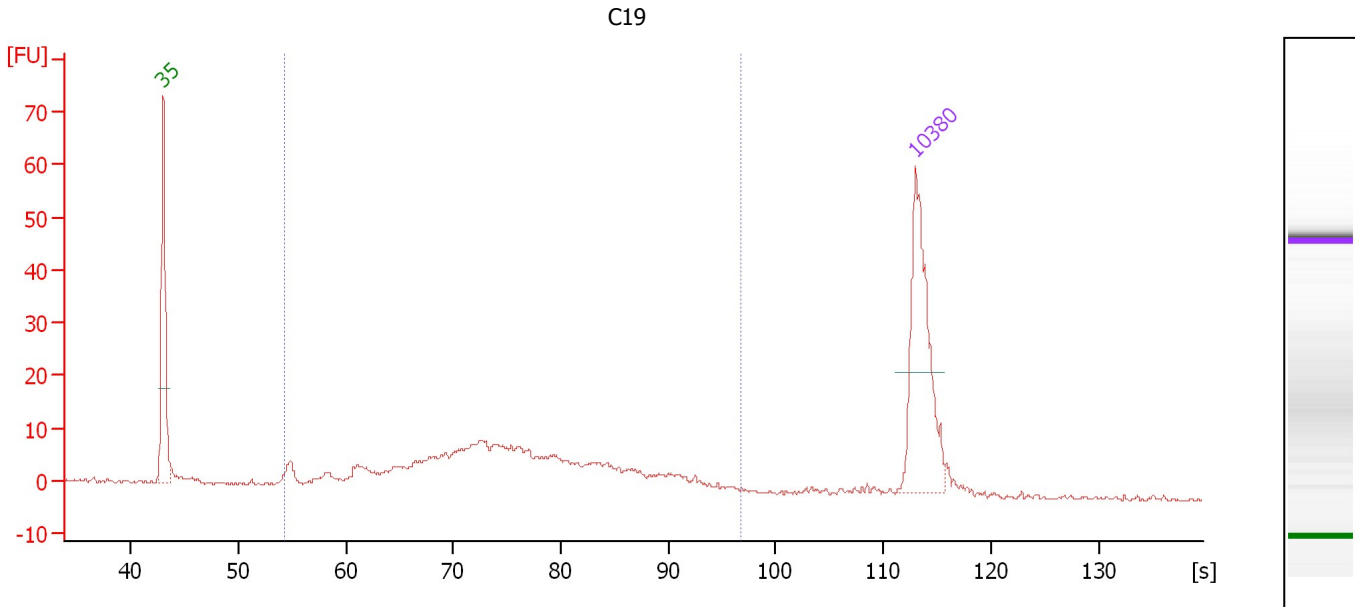
**Peak table for sample 5 : C18**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	0	0.00	0.0	Lower Marker	41.60
2	0	0.00	0.0		76.65
3	0	0.00	0.0		78.25

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-13\2015-01-13\_003.xad

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**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : C19**

Number of peaks found: 0                      Corr. Area 1: 236.1  
 Noise: 0.3

**Peak table for sample 6 : C19**

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	10,380	75.00	10.9	Upper Marker	113.00

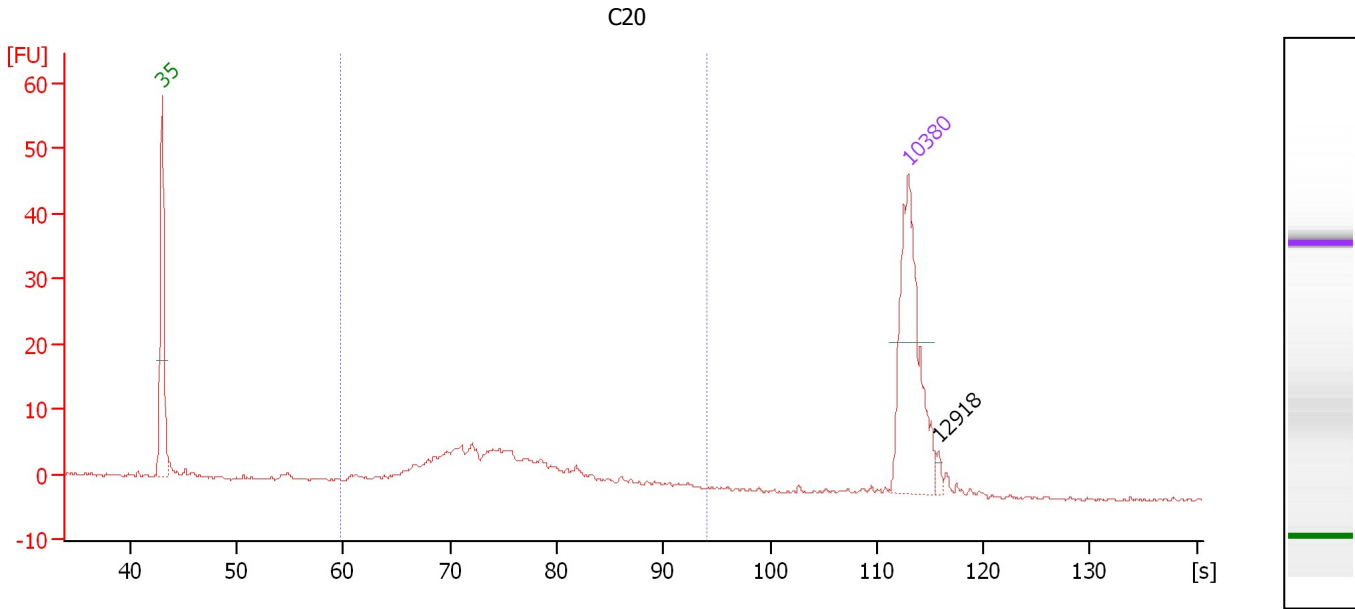
**Region table for sample 6 : C19**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
140	418	1,397	236.1	91	42.6	257.25	1,177.7	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-13\2015-01-13\_003.xad

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**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : C20**

Number of peaks found: 1                      Corr. Area 1: 110.9  
 Noise: 0.2

**Peak table for sample 7 : C20**

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	10,380	75.00	10.9	Upper Marker	113.00
3	12,918	0.00	0.0		115.77

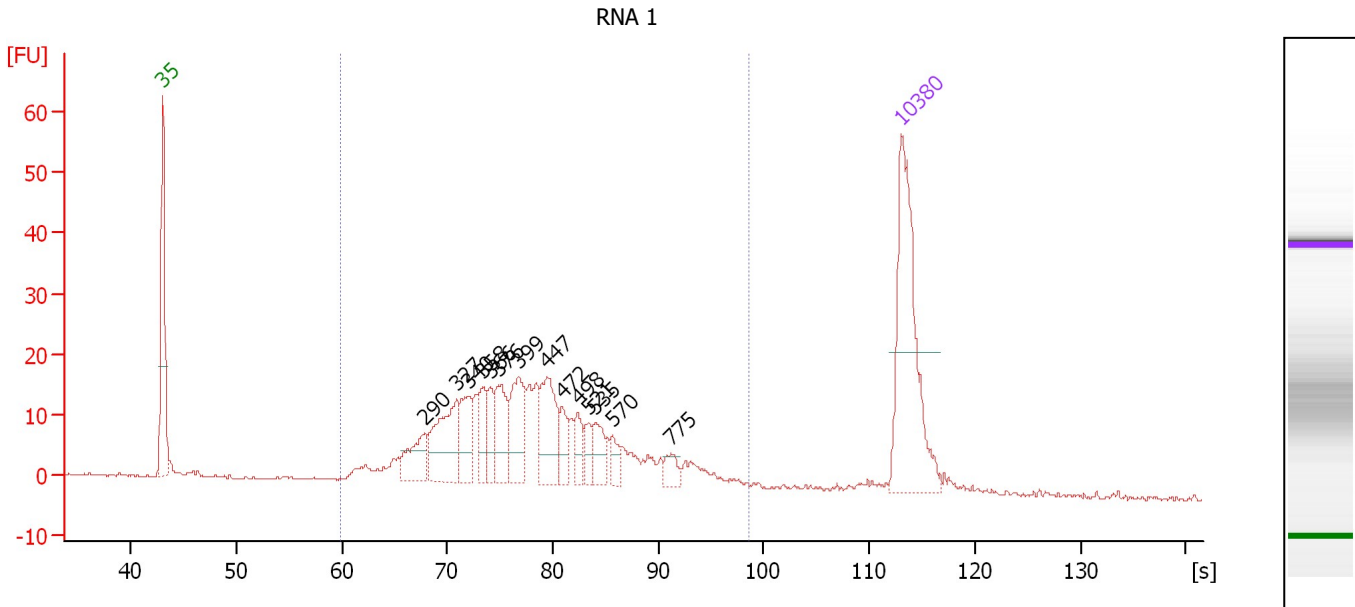
**Region table for sample 7 : C20**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	393	1,000	110.9	81	29.5	137.11	582.0	Blue

Assay Class: High Sensitivity DNA Assay  
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**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : RNA 1**

Number of peaks found: 14                      Corr. Area 1: 396.5  
 Noise: 0.2

**Peak table for sample 8 : RNA 1**

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	290	26.07	136.2		67.84
3	327	50.15	232.5		70.90
4	340	24.58	109.5		71.97
5	358	16.98	71.9		73.39
6	366	15.70	65.0		74.05
7	376	27.02	108.8		74.87
8	399	33.94	128.7		76.75
9	447	36.74	124.5		79.45
10	472	12.83	41.2		80.88
11	498	11.51	35.0		82.35
12	521	8.48	24.6		83.42
13	535	13.42	38.0		84.03
14	570	7.82	20.8		85.66
15	775	7.54	14.7		91.21
16	10,380	75.00	10.9	Upper Marker	113.00

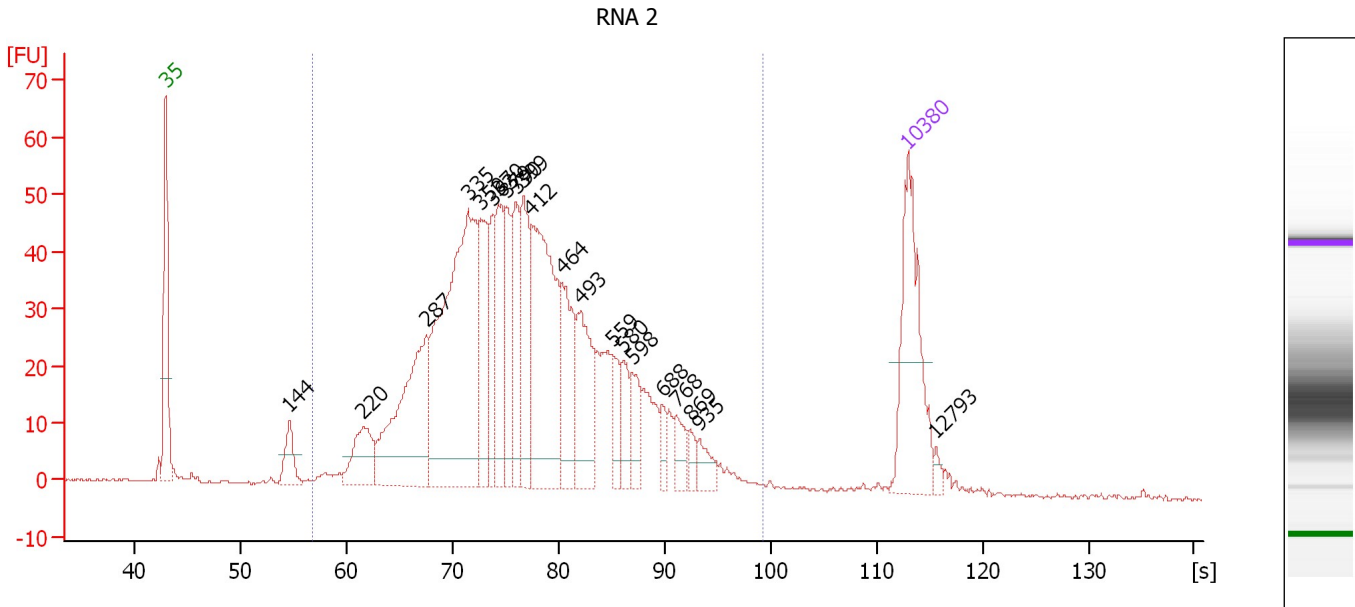
**Region table for sample 8 : RNA 1**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	454	1,683	396.5	95	40.7	405.60	1,570.1	Blue

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**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : RNA 2**

Number of peaks found: 21                      Corr. Area 1: 1,234.7  
 Noise: 0.3

**Peak table for sample 9 : RNA 2**

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	144	26.31	276.9		54.65
3	220	44.90	309.3		61.59
4	287	145.21	766.8		67.57
5	335	269.87	1,222.3		71.52
6	350	64.24	278.4		72.73
7	363	45.71	190.9		73.80
8	370	64.38	263.4		74.40
9	379	45.29	181.0		75.11
10	390	54.63	212.0		76.02
11	399	63.03	239.2		76.73
12	412	155.57	571.6		77.49
13	464	56.16	183.6		80.38
14	493	65.95	202.6		82.05
15	559	19.89	53.9		85.14
16	580	20.74	54.2		86.10
17	598	21.45	54.3		86.97
18	688	10.29	22.7		89.85
19	768	15.13	29.8		91.12
20	869	6.82	11.9		92.44
21	935	12.59	20.4		93.30
22	10,380	75.00	10.9	Upper Marker	113.00
23	12,793	0.00	0.0		115.63

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**Electropherogram Summary Continued ...**

... Region table for sample 9 :

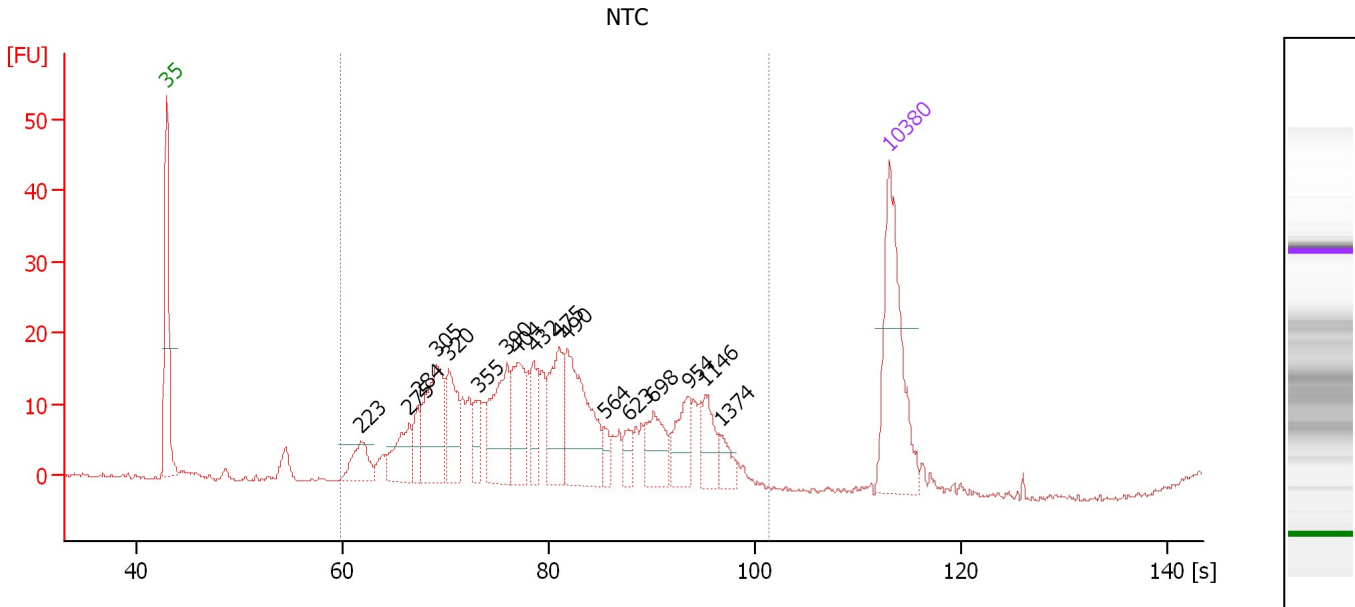
RNA 2

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
167	438	1,780	1,234.7	96	40.7	1,312.78	5,315.0	■

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**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : NTC**

Number of peaks found: 17                      Corr. Area 1: 435.1  
 Noise: 0.3

**Peak table for sample 10 : NTC**

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	223	28.13	190.9		61.88
3	275	34.29	188.9		66.51
4	284	17.21	91.7		67.34
5	305	72.18	359.0		69.11
6	320	42.98	203.4		70.36
7	355	18.70	79.8		73.16
8	390	58.20	226.2		75.97
9	404	46.66	175.1		77.01
10	432	24.94	87.6		78.57
11	475	47.97	153.1		81.02
12	490	81.28	251.6		81.85
13	564	9.67	26.0		85.38
14	623	10.80	26.3		87.78
15	698	29.04	63.0		90.17
16	954	25.16	40.0		93.55
17	1,146	20.09	26.6		95.11
18	1,374	10.67	11.8		96.62
19	10,380	75.00	10.9	Upper Marker	113.00

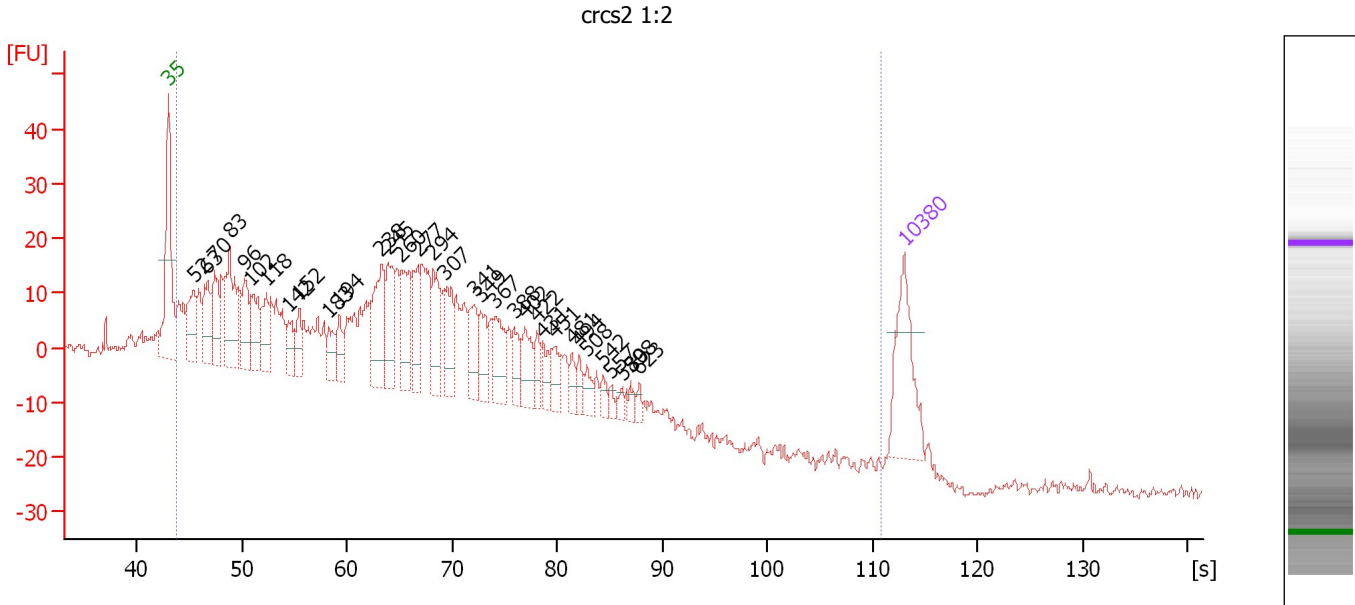
**Region table for sample 10 : NTC**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	526	2,192	435.1	99	52.5	599.26	2,224.2	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-13\2015-01-13\_003.xad

Created: 1/13/2015 3:17:12 PM  
 Modified: 1/13/2015 3:58:27 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 11 : crs2 1:2**

Number of peaks found: 33                      Corr. Area 1: 969.7  
 Noise: 0.8

**Peak table for sample 11 : crs2 1:2**

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	52	66.77	1,961.4		45.40
3	63	70.44	1,681.6		46.68
4	70	64.47	1,393.2		47.39
5	83	111.57	2,026.2		48.82
6	96	63.22	995.0		50.20
7	102	72.19	1,069.2		50.82
8	118	48.64	622.4		52.30
9	142	30.48	325.8		54.45
10	152	29.93	297.8		55.42
11	183	27.26	225.2		58.28
12	194	28.32	221.3		59.25
13	238	91.77	583.2		63.23
14	245	61.40	379.3		63.85
15	260	65.41	381.8		65.12
16	277	53.83	294.1		66.71
17	294	64.67	333.4		68.19
18	307	54.01	266.3		69.31
19	341	43.59	193.4		72.07
20	349	38.09	165.3		72.69
21	367	43.82	181.0		74.12
22	388	27.55	107.5		75.85
23	402	35.51	133.7		76.93
24	422	19.43	69.7		78.05
25	431	19.23	67.5		78.56



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-13\2015-01-13\_003.xad

Created: 1/13/2015 3:17:12 PM  
 Modified: 1/13/2015 3:58:27 PM

**Electropherogram Summary Continued ...**

**... Peak table for sample 11 : crs2 1:2**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
26	451	25.52	85.7		79.69
27	481	15.08	47.5		81.37
28	494	13.97	42.9		82.09
29	508	15.53	46.3		82.80
30	542	10.31	28.8		84.39
31	557	6.54	17.8		85.05
32	580	7.09	18.5		86.12
33	598	9.34	23.7		86.94
34	623	6.84	16.7		87.76
35	▶ 10,380	75.00	10.9	Upper Marker	113.00

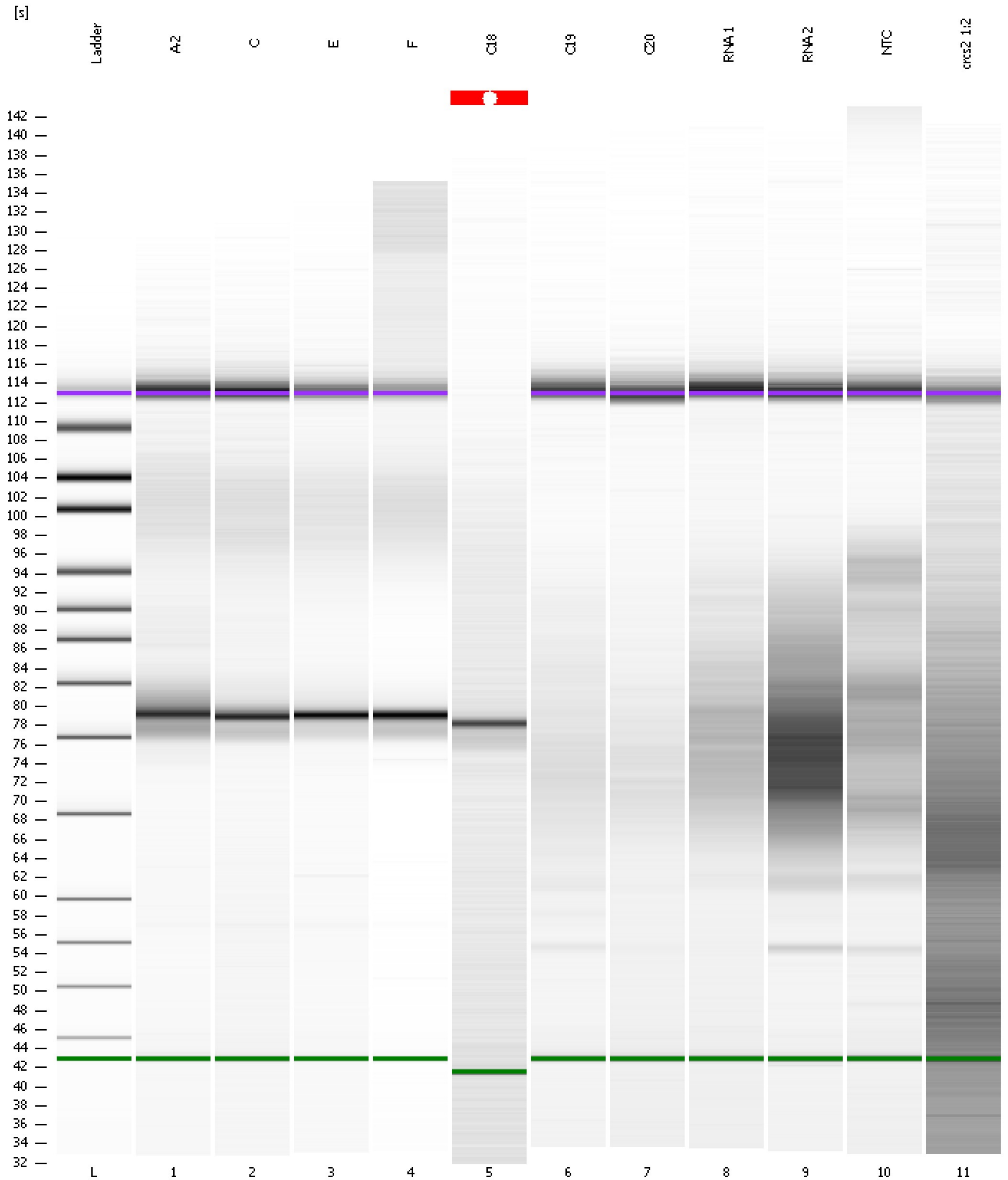
**Region table for sample 11 : crs2 1:2**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
40	266	8,424	969.7	95	54.3	2,163.90	23,340.3	■

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-13\2015-01-13\_003.xad

Created: 1/13/2015 3:17:12 PM  
Modified: 1/13/2015 3:58:27 PM

**Gel Image**



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-13\2015-01-13\_003.xad

Created: 1/13/2015 3:17:12 PM  
 Modified: 1/13/2015 3:58:27 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		1/13/2015 3:57:39 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2015-01-13\2015-01-13_003.xad)		Instrument	Run		1/13/2015 3:17:18 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		1/13/2015 3:17:18 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		1/13/2015 3:17:18 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		1/13/2015 3:17:18 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		1/13/2015 3:17:18 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		1/13/2015 3:17:18 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		1/13/2015 3:17:18 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1