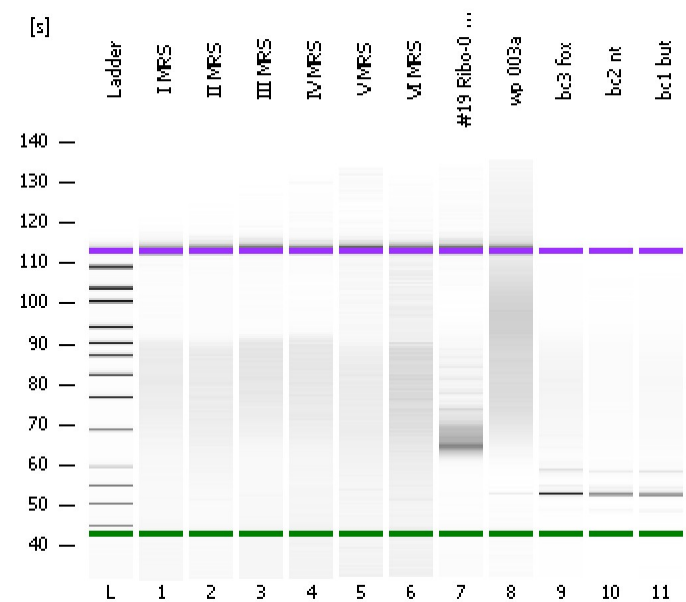


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...nd Settings\Bioanalyzer\2012-06-15\2012-06-15_003_lib19.xad

Created: 6/15/2012 3:17:40 PM
Modified: 6/18/2012 9:19:50 AM

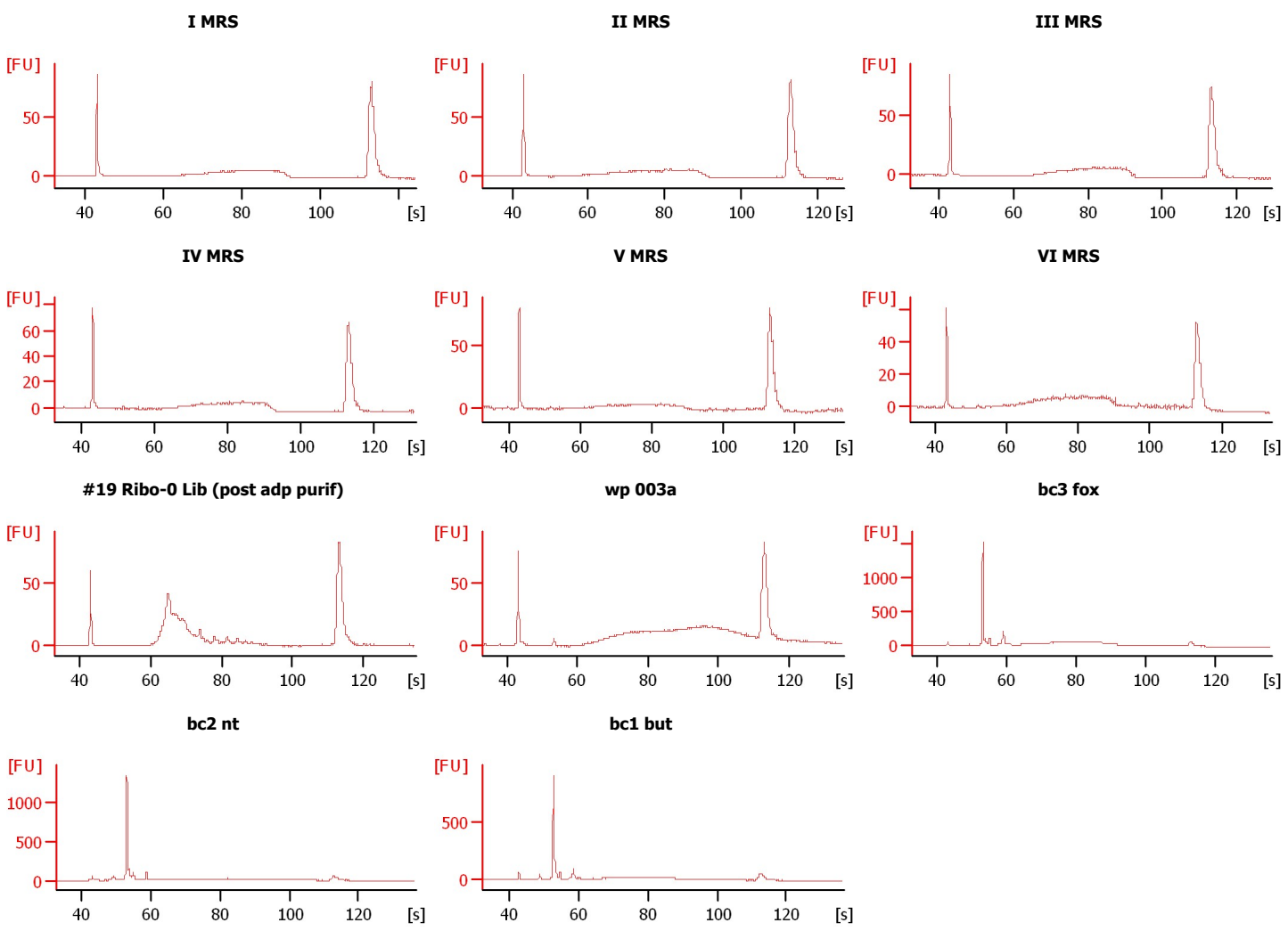
Electrophoresis File Run Summary



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:



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...nd Settings\Bioanalyzer\2012-06-15\2012-06-15_003_lib19.xad

Created: 6/15/2012 3:17:40 PM
 Modified: 6/18/2012 9:19:50 AM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
I MRS		<input type="checkbox"/>	✓			
II MRS		<input type="checkbox"/>	✓			
III MRS		<input type="checkbox"/>	✓			
IV MRS		<input type="checkbox"/>	✓			
V MRS		<input type="checkbox"/>	✓			
VI MRS		<input type="checkbox"/>	✓			
#19 Ribo-0 Lib (post adp purif)		<input type="checkbox"/>	✓			
wp 003a		<input type="checkbox"/>	✓			
bc3 fox		<input type="checkbox"/>	✓			
bc2 nt		<input type="checkbox"/>	✓			
bc1 but		<input type="checkbox"/>	✓			
Ladder		<input type="checkbox"/>	✓			

Chip Lot #

Reagent Kit Lot #

Chip Comments :

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...nd Settings\Bioanalyzer\2012-06-15\2012-06-15_003_lib19.xad

Created: 6/15/2012 3:17:40 PM
 Modified: 6/18/2012 9:19:50 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

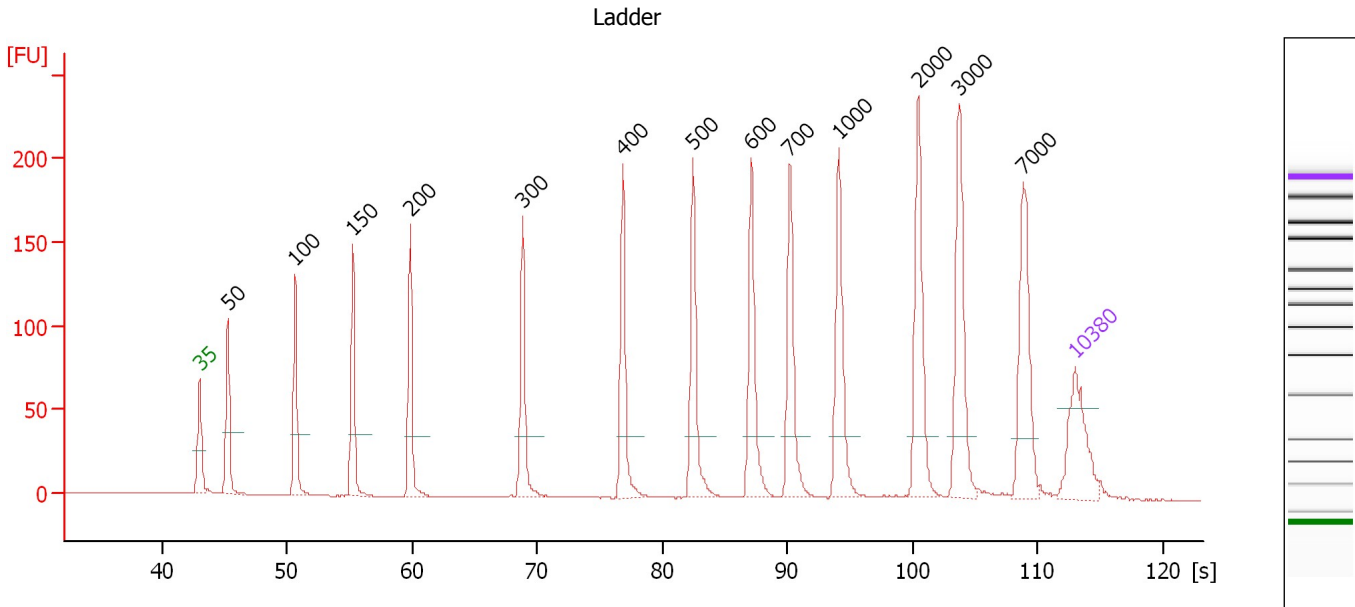
Ladder

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:\...nd Settings\Bioanalyzer\2012-06-15\2012-06-15_003_lib19.xad

Created: 6/15/2012 3:17:40 PM
 Modified: 6/18/2012 9:19:50 AM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.1

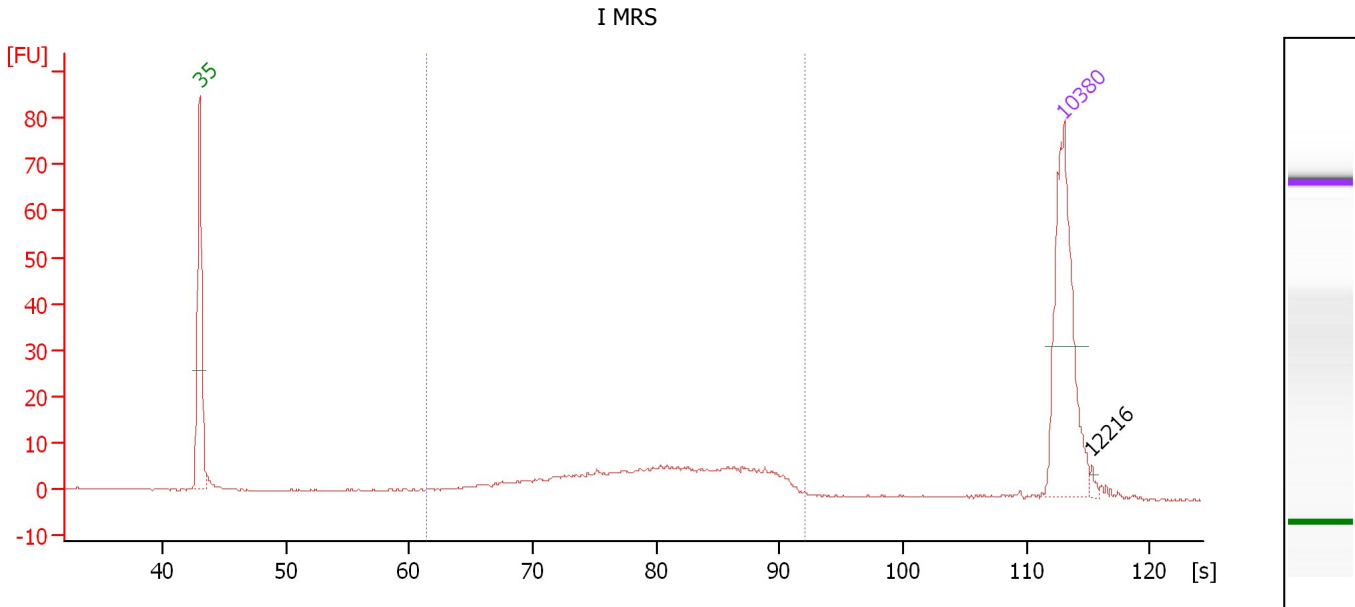
Peak table for Ladder

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:\...nd Settings\Bioanalyzer\2012-06-15\2012-06-15_003_lib19.xad

Created: 6/15/2012 3:17:40 PM
 Modified: 6/18/2012 9:19:50 AM

Electropherogram Summary Continued ...



Overall Results for sample 1 : I MRS

Number of peaks found: 1 Corr. Area 1: 156.8
 Noise: 0.2

Peak table for sample 1 : I MRS

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
3	12,216	0.00	0.0	

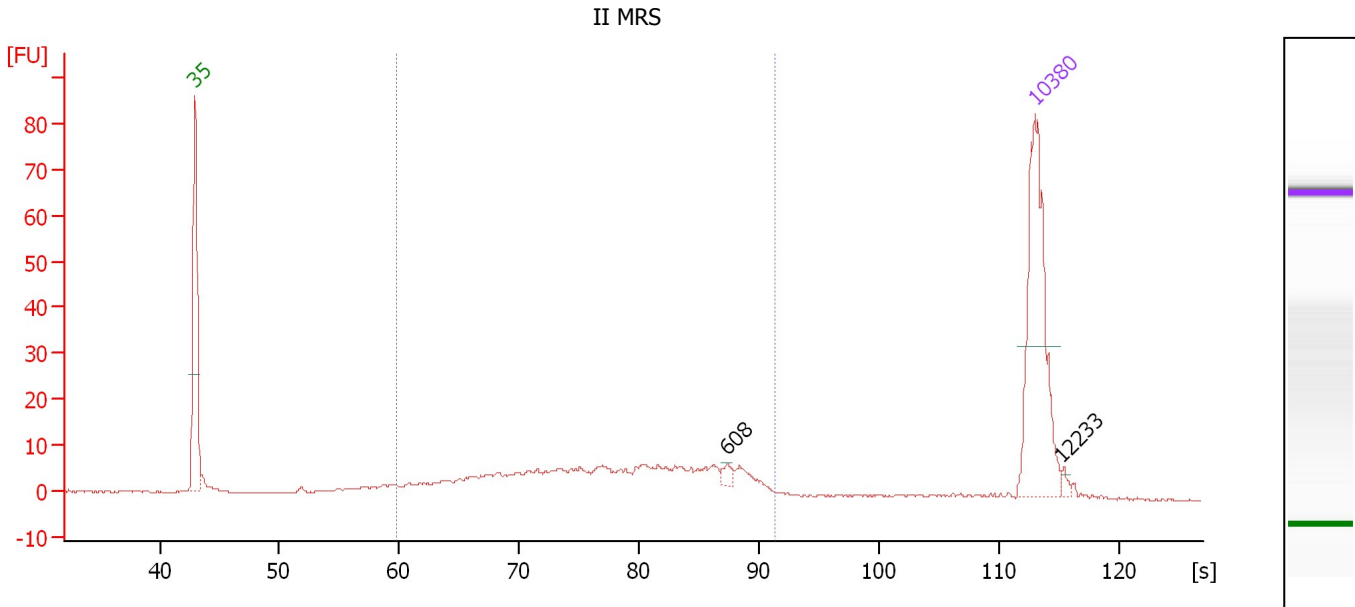
Region table for sample 1 : I MRS

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
61.45	92.05	470	500.2	137.42	156.8	84	27.4	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...nd Settings\Bioanalyzer\2012-06-15\2012-06-15_003_lib19.xad

Created: 6/15/2012 3:17:40 PM
 Modified: 6/18/2012 9:19:50 AM

Electropherogram Summary Continued ...



Overall Results for sample 2 : II MRS

Number of peaks found: 2 Corr. Area 1: 207.2
 Noise: 0.1

Peak table for sample 2 : II MRS

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	608	3.88	9.7	
3	10,380	75.00	10.9	Upper Marker
4	12,233	0.00	0.0	

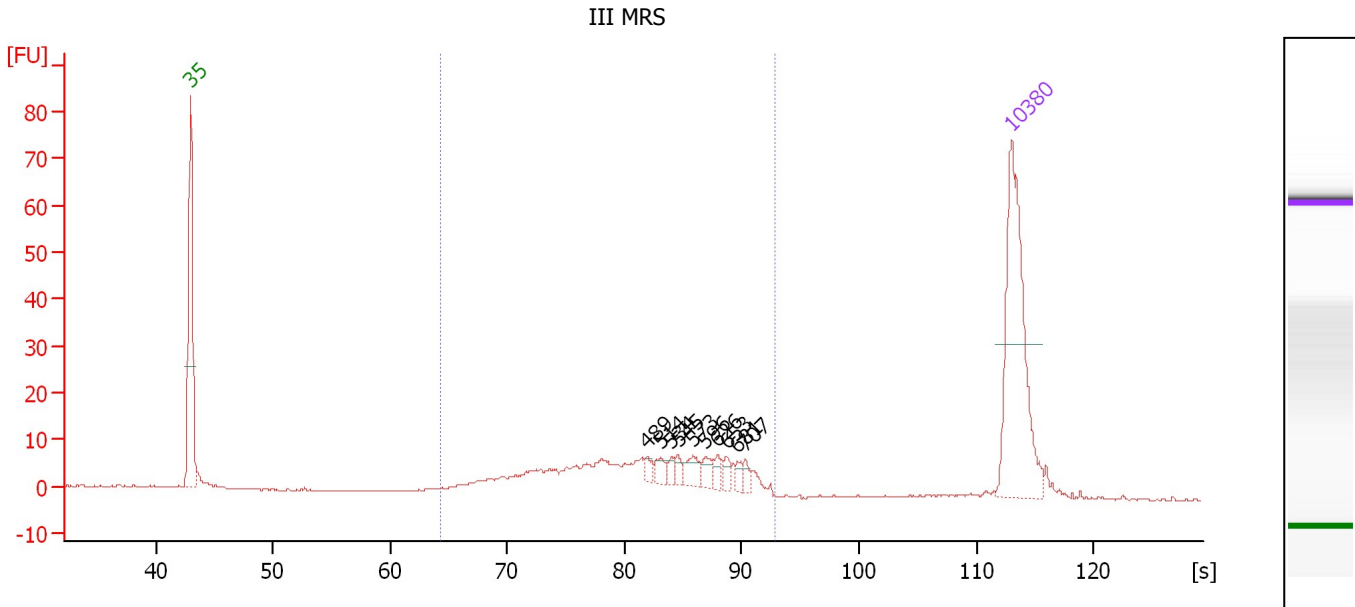
Region table for sample 2 : II MRS

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area % of Total	Size distribution in CV [%]	Color
59.83	91.25	432	730.9	179.26	207.2 80	30.5	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...nd Settings\Bioanalyzer\2012-06-15\2012-06-15_003_lib19.xad

Created: 6/15/2012 3:17:40 PM
 Modified: 6/18/2012 9:19:50 AM

Electropherogram Summary Continued ...



Overall Results for sample 3 : III MRS

Number of peaks found: 10 Corr. Area 1: 182.2
 Noise: 0.1

Peak table for sample 3 : III MRS

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	489	3.92	12.1	
3	514	5.53	16.3	
4	534	3.38	9.6	
5	545	3.74	10.4	
6	573	8.26	21.8	
7	596	6.00	15.2	
8	626	4.12	10.0	
9	653	4.32	10.0	
10	681	4.07	9.1	
11	707	3.76	8.1	
12	10,380	75.00	10.9	Upper Marker

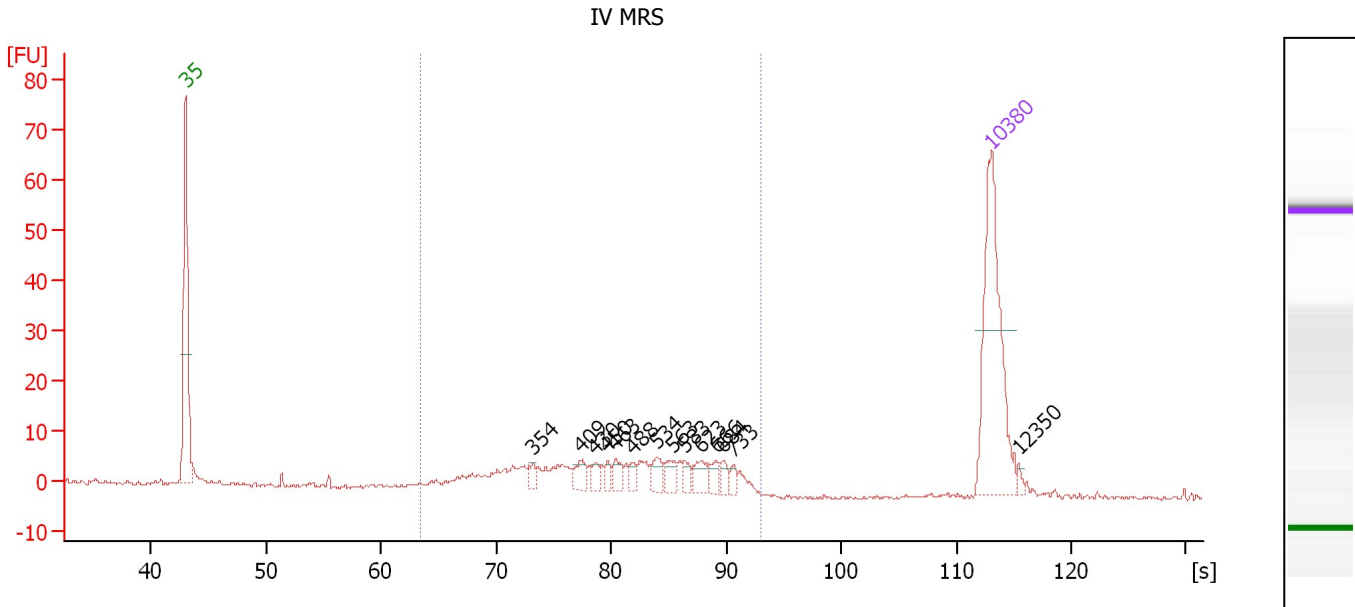
Region table for sample 3 : III MRS

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area % of Total	Size distribution in CV [%]	Color
64.35	92.74	493	547.2	160.19	182.2 91	26.5	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...nd Settings\Bioanalyzer\2012-06-15\2012-06-15_003_lib19.xad

Created: 6/15/2012 3:17:40 PM
 Modified: 6/18/2012 9:19:50 AM

Electropherogram Summary Continued ...



Overall Results for sample 4 : IV MRS

Number of peaks found: 14 Corr. Area 1: 145.8
 Noise: 0.2

Peak table for sample 4 : IV MRS

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	354	4.38	18.8	
3	409	8.17	30.3	
4	430	4.87	17.2	
5	450	4.18	14.1	
6	463	7.09	23.2	
7	488	4.67	14.5	
8	534	8.44	24.0	
9	563	7.30	19.6	
10	583	5.24	13.6	
11	623	9.19	22.3	
12	666	5.02	11.4	
13	684	4.80	10.6	
14	733	3.88	8.0	
15	10,380	75.00	10.9	Upper Marker
16	12,350	0.00	0.0	

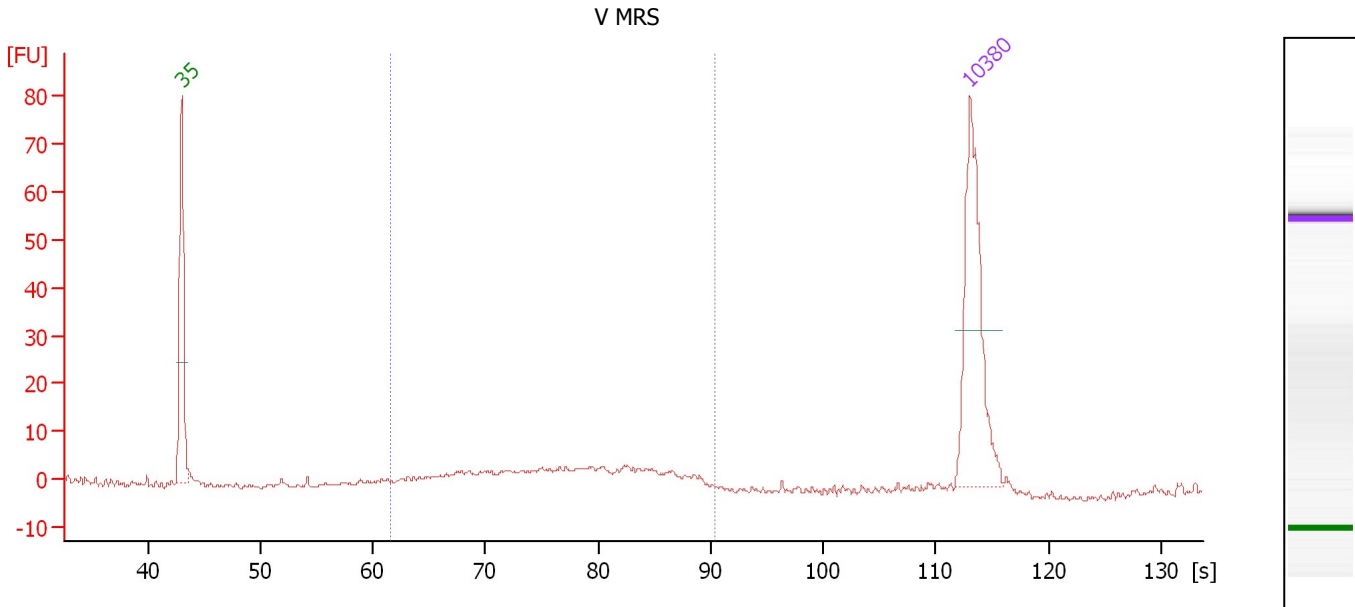
Region table for sample 4 : IV MRS

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
63.51	92.97	484	526.1	149.62	145.8	91	27.8	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...nd Settings\Bioanalyzer\2012-06-15\2012-06-15_003_lib19.xad

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 Modified: 6/18/2012 9:19:50 AM

Electropherogram Summary Continued ...



Overall Results for sample 5 : V MRS

Number of peaks found: 0 Corr. Area 1: 60.8
 Noise: 0.3

Peak table for sample 5 : V MRS

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

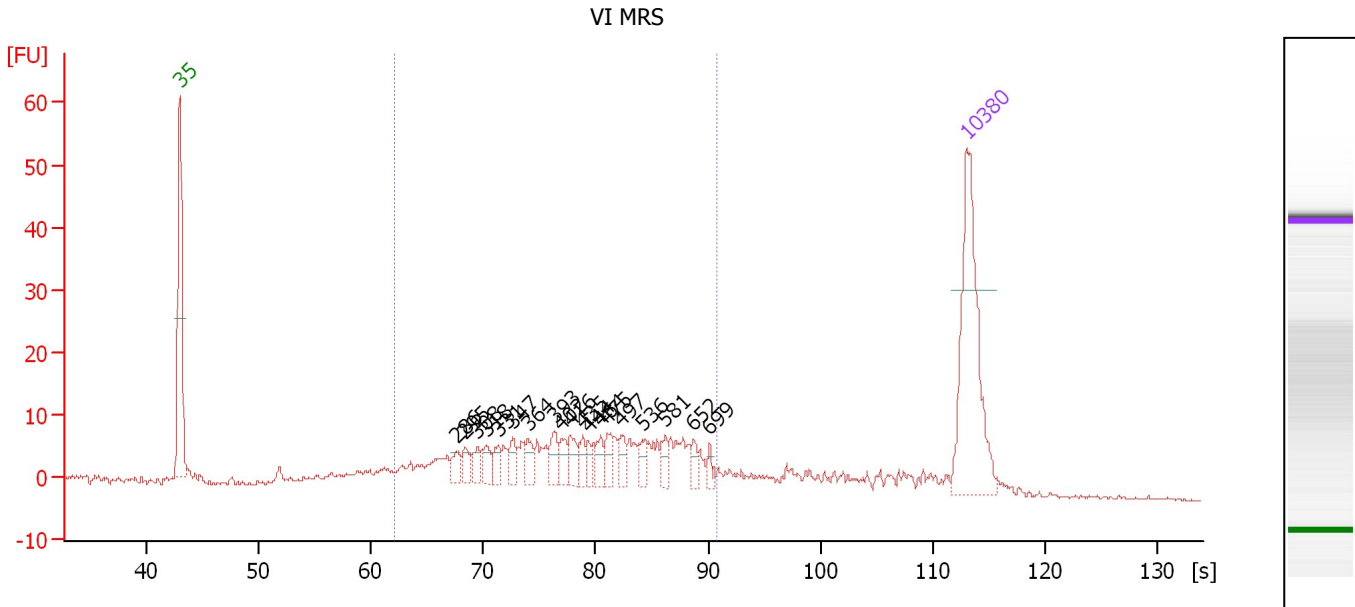
Region table for sample 5 : V MRS

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
61.55	90.43	426	213.2	55.05	60.8	97	23.5	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...nd Settings\Bioanalyzer\2012-06-15\2012-06-15_003_lib19.xad

Created: 6/15/2012 3:17:40 PM
 Modified: 6/18/2012 9:19:50 AM

Electropherogram Summary Continued ...



Overall Results for sample 6 : VI MRS

Number of peaks found: 19 Corr. Area 1: 237.3
 Noise: 0.2

Peak table for sample 6 : VI MRS

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	286	8.63	45.7	
3	295	7.98	41.0	
4	308	6.95	34.2	
5	318	9.11	43.4	
6	331	8.91	40.8	
7	347	10.35	45.2	
8	364	9.22	38.4	
9	393	11.61	44.7	
10	402	9.66	36.4	
11	416	10.75	39.1	
12	435	7.64	26.6	
13	444	6.81	23.2	
14	464	9.65	31.5	
15	475	10.71	34.2	
16	497	9.64	29.4	
17	536	6.58	18.6	
18	581	7.47	19.5	
19	652	6.18	14.3	
20	699	4.14	9.0	
21	10,380	75.00	10.9	Upper Marker

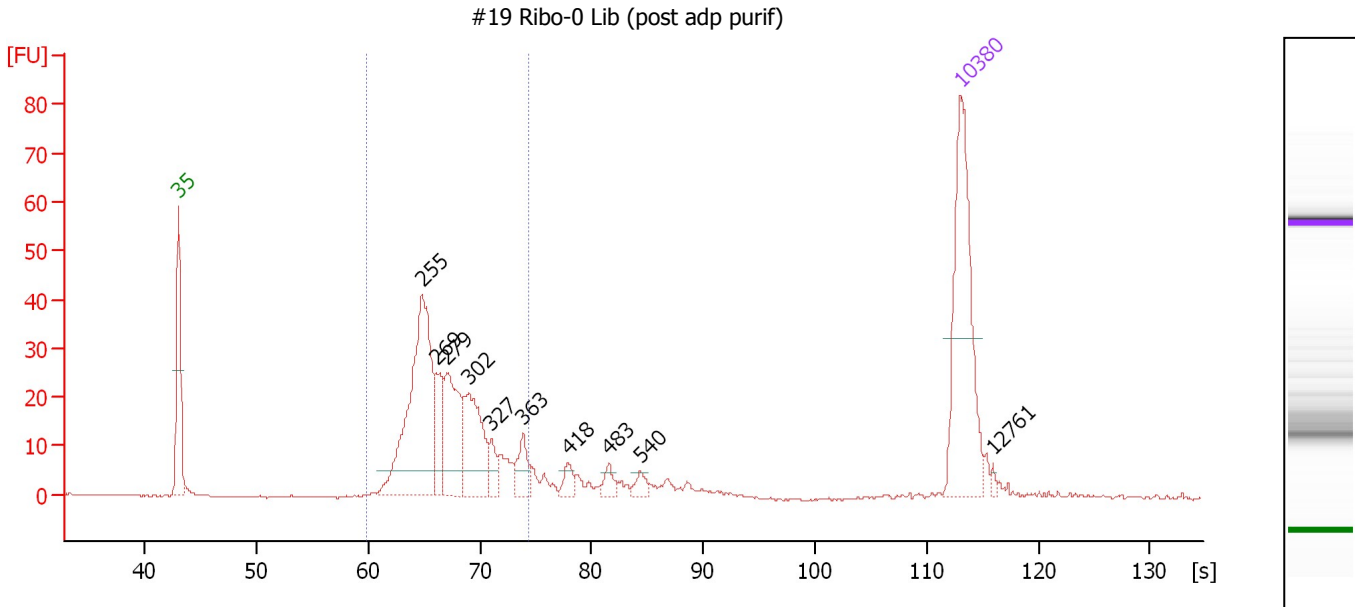
Region table for sample 6 : VI MRS

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area % of Total	Size distribution in CV [%]	Color
62.08	90.84	441	1,180.0	302.84	237.3 73	28.3	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...nd Settings\Bioanalyzer\2012-06-15\2012-06-15_003_lib19.xad

Created: 6/15/2012 3:17:40 PM
 Modified: 6/18/2012 9:19:50 AM

Electropherogram Summary Continued ...



Overall Results for sample 7 : #19 Ribo-0 Lib (post adp purif)

Number of peaks found: 10 Corr. Area 1: 345.1
 Noise: 0.2

Peak table for sample 7 : #19 Ribo-0 Lib (post adp purif)

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	255	145.27	863.2	
3	269	26.58	149.5	
4	279	55.52	301.5	
5	302	54.32	272.9	
6	327	11.16	51.7	
7	363	15.33	64.0	
8	418	7.11	25.7	
9	483	6.35	19.9	
10	540	5.22	14.6	
11	10,380	75.00	10.9	Upper Marker
12	12,761	0.00	0.0	

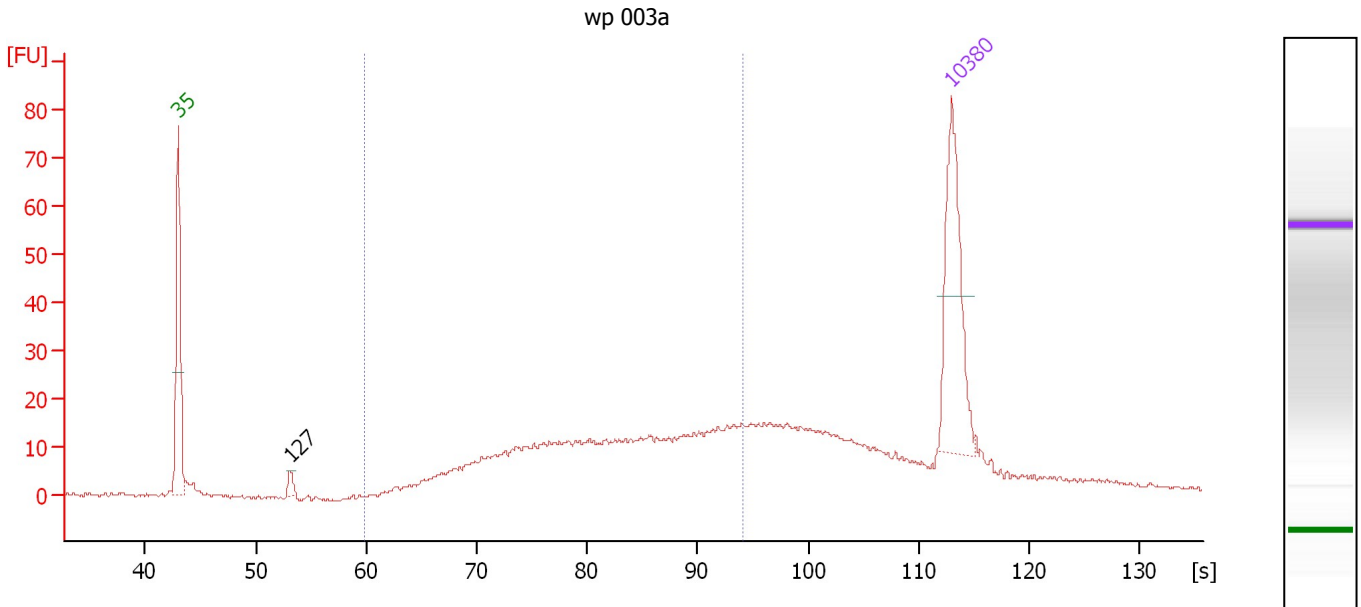
Region table for sample 7 : #19 Ribo-0 Lib (post adp purif)

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
59.83	74.35	282	1,768.2	323.80	345.1	81	12.5	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...nd Settings\Bioanalyzer\2012-06-15\2012-06-15_003_lib19.xad

Created: 6/15/2012 3:17:40 PM
 Modified: 6/18/2012 9:19:50 AM

Electropherogram Summary Continued ...



Overall Results for sample 8 : wp 003a

Number of peaks found: 1 Corr. Area 1: 341.2
 Noise: 0.4

Peak table for sample 8 : wp 003a

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	127	7.48	89.4	
3	10,380	75.00	10.9	Upper Marker

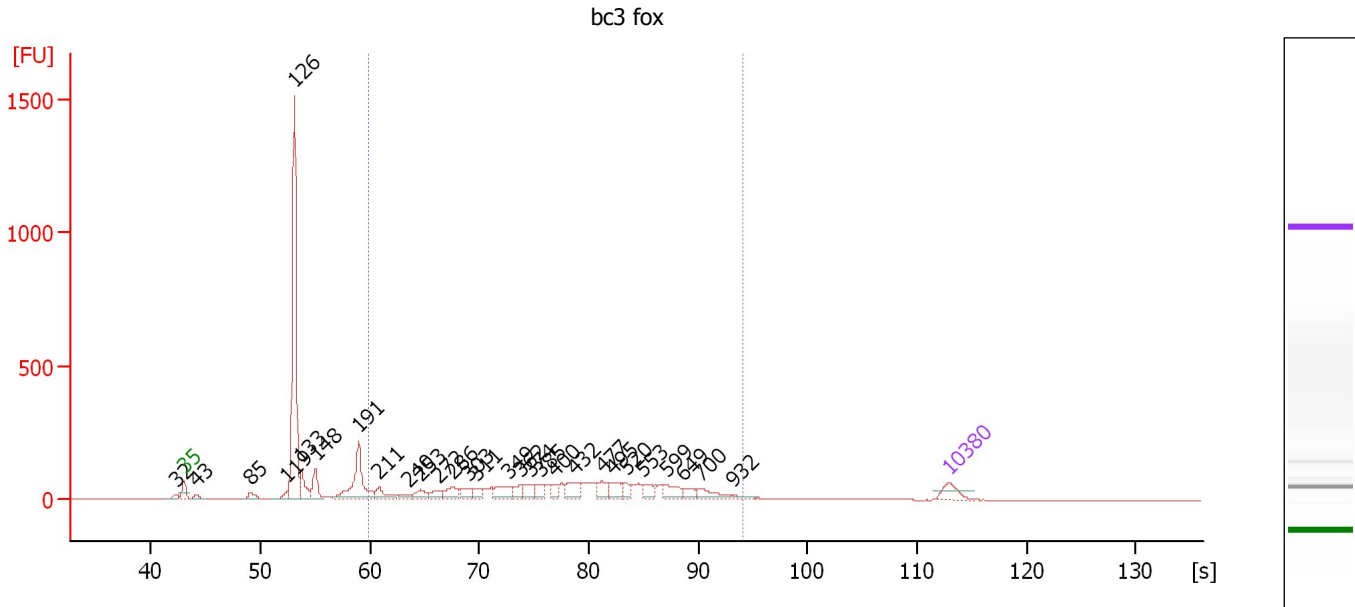
Region table for sample 8 : wp 003a

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
59.83	94.10	535	1,165.0	346.50	341.2	60	35.3	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...nd Settings\Bioanalyzer\2012-06-15\2012-06-15_003_lib19.xad

Created: 6/15/2012 3:17:40 PM
 Modified: 6/18/2012 9:19:50 AM

Electropherogram Summary Continued ...



Overall Results for sample 9 : bc3 fox

Number of peaks found: 29 Corr. Area 1: 2,054.9
 Noise: 0.6

Peak table for sample 9 : bc3 fox

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	43	44.64	1,589.7	
4	85	64.01	1,136.4	
5	119	56.60	718.2	
6	126	1,958.53	23,492.2	
7	133	170.69	1,941.2	
8	148	175.40	1,800.8	
9	191	494.71	3,932.0	
10	211	101.66	729.9	
11	240	43.10	271.7	
12	253	83.41	498.9	
13	272	71.24	397.3	
14	286	107.46	569.7	
15	303	79.01	395.2	
16	311	59.37	289.4	
17	349	134.51	584.3	
18	362	67.84	284.3	
19	374	93.50	378.9	
20	385	65.58	257.8	
21	400	50.89	192.7	
22	432	119.25	417.9	
23	477	95.06	301.7	
24	495	96.20	294.5	
25	520	57.17	166.6	
26	553	78.22	214.4	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...nd Settings\Bioanalyzer\2012-06-15\2012-06-15_003_lib19.xad


Created: 6/15/2012 3:17:40 PM
 Modified: 6/18/2012 9:19:50 AM

Electropherogram Summary Continued ...

... Peak table for sample 9 : bc3 fox

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
27	599	94.59	239.2	
28	649	52.53	122.6	
29	700	89.43	193.6	
30	932	16.65	27.1	
31	10,380	75.00	10.9	Upper Marker

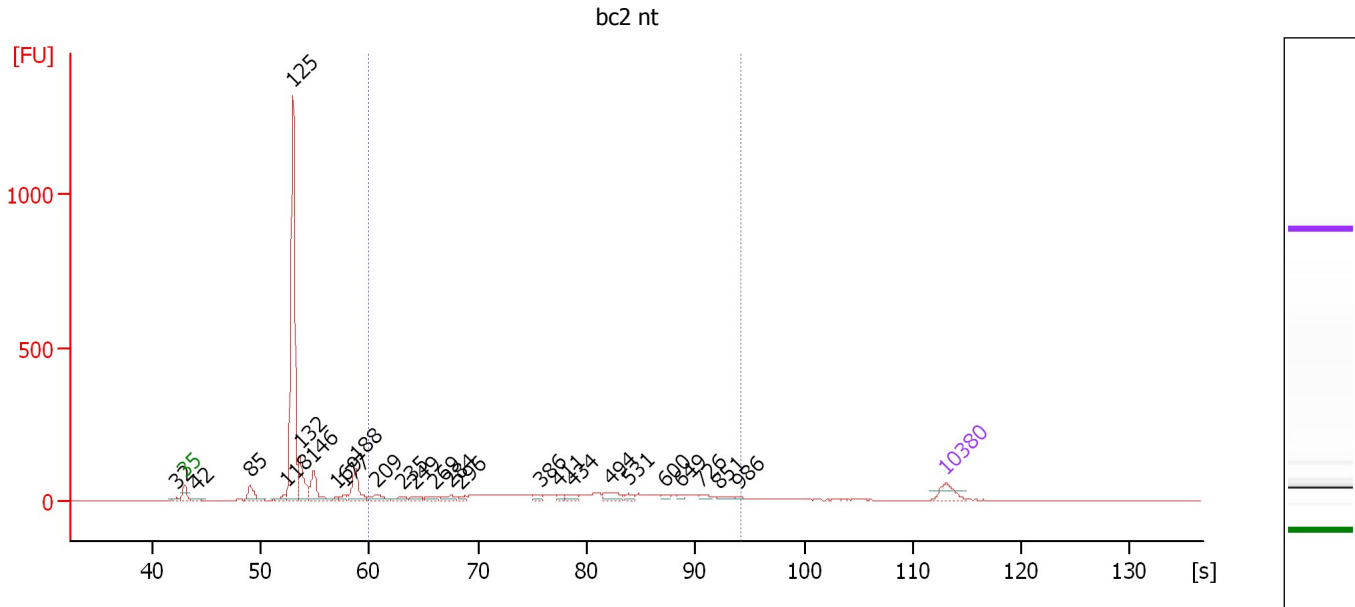
Region table for sample 9 : bc3 fox

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area % of Total	Size distribution in CV [%]	Color	
59.83	94.10	449	9,316.8	2,322.15	2,054.9	49	34.8	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...nd Settings\Bioanalyzer\2012-06-15\2012-06-15_003_lib19.xad

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Electropherogram Summary Continued ...



Overall Results for sample 10 : bc2 nt

Number of peaks found: 26 Corr. Area 1: 780.4
 Noise: 0.2

Peak table for sample 10 : bc2 nt

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	42	26.40	953.8	
4	85	134.77	2,395.6	
5	118	49.24	632.7	
6	125	2,109.78	25,490.4	
7	132	280.82	3,227.7	
8	146	211.85	2,202.6	
9	169	17.37	156.0	
10	177	30.67	262.9	
11	188	207.02	1,668.5	
12	209	68.51	496.6	
13	235	29.79	191.9	
14	249	25.12	153.0	
15	269	28.46	160.3	
16	284	41.18	219.5	
17	296	21.93	112.4	
18	386	27.30	107.1	
19	411	24.21	89.2	
20	434	35.24	123.1	
21	494	60.37	185.2	
22	531	29.02	82.8	
23	600	20.69	52.3	
24	649	15.52	36.2	
25	726	23.06	48.1	
26	851	21.04	37.5	


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...nd Settings\Bioanalyzer\2012-06-15\2012-06-15_003_lib19.xad

Created: 6/15/2012 3:17:40 PM
Modified: 6/18/2012 9:19:50 AM

Electropherogram Summary Continued ...**... Peak table for sample 10 : bc2 nt**

Peak	Size [bp]	Conc. [pg/ μ l]	Molarity [pmol/l]	Observations
27	986	6.82	10.5	
28	 10,380	75.00	10.9	Upper Marker

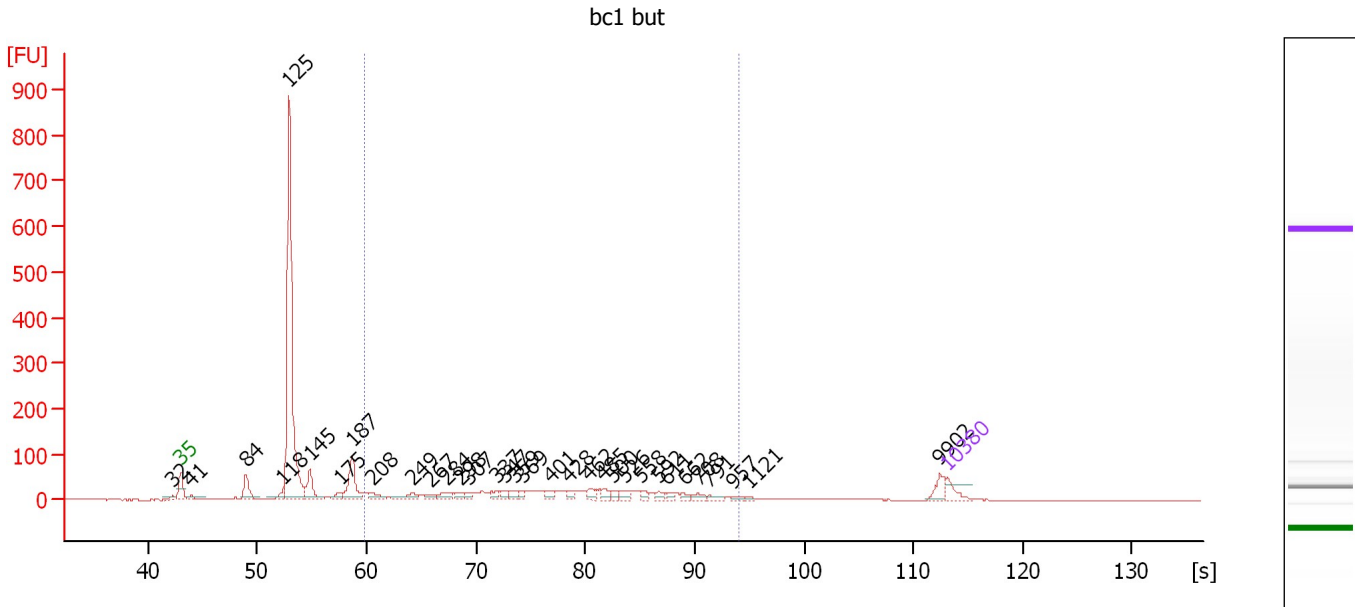
Region table for sample 10 : bc2 nt

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/ μ l]	Corr. Area % of Total	Size distribution in CV [%]	Color
59.83	94.10	465	4,218.3	1,054.06	780.4	30	37.8 

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...nd Settings\Bioanalyzer\2012-06-15\2012-06-15_003_lib19.xad

Created: 6/15/2012 3:17:40 PM
 Modified: 6/18/2012 9:19:50 AM

Electropherogram Summary Continued ...



Overall Results for sample 11 : bc1 but

Number of peaks found: 33 Corr. Area 1: 759.1
 Noise: 0.2

Peak table for sample 11 : bc1 but

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	41	56.66	2,080.2	
4	84	213.90	3,845.1	
5	118	65.00	835.7	
6	125	2,924.59	35,508.0	
7	145	242.80	2,535.2	
8	175	64.22	555.9	
9	187	360.31	2,914.2	
10	208	75.58	551.1	
11	249	94.66	576.8	
12	267	53.19	301.6	
13	284	80.15	428.4	
14	298	61.02	310.6	
15	307	45.69	225.8	
16	337	55.63	249.9	
17	347	46.85	204.5	
18	359	55.77	235.1	
19	369	41.53	170.7	
20	401	58.25	220.1	
21	428	47.79	169.2	
22	462	61.68	202.2	
23	485	60.37	188.7	
24	500	45.84	139.0	
25	526	51.54	148.5	
26	558	36.03	97.9	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...nd Settings\Bioanalyzer\2012-06-15\2012-06-15_003_lib19.xad


Created: 6/15/2012 3:17:40 PM
 Modified: 6/18/2012 9:19:50 AM

Electropherogram Summary Continued ...

... Peak table for sample 11 : bc1 but

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
27	592	35.85	91.8	
28	611	29.75	73.7	
29	662	27.99	64.0	
30	708	45.67	97.7	
31	791	33.30	63.8	
32	957	15.52	24.6	
33	1,121	10.70	14.5	
34	9,902	82.65	12.6	
35	▶ 10,380	75.00	10.9	Upper Marker

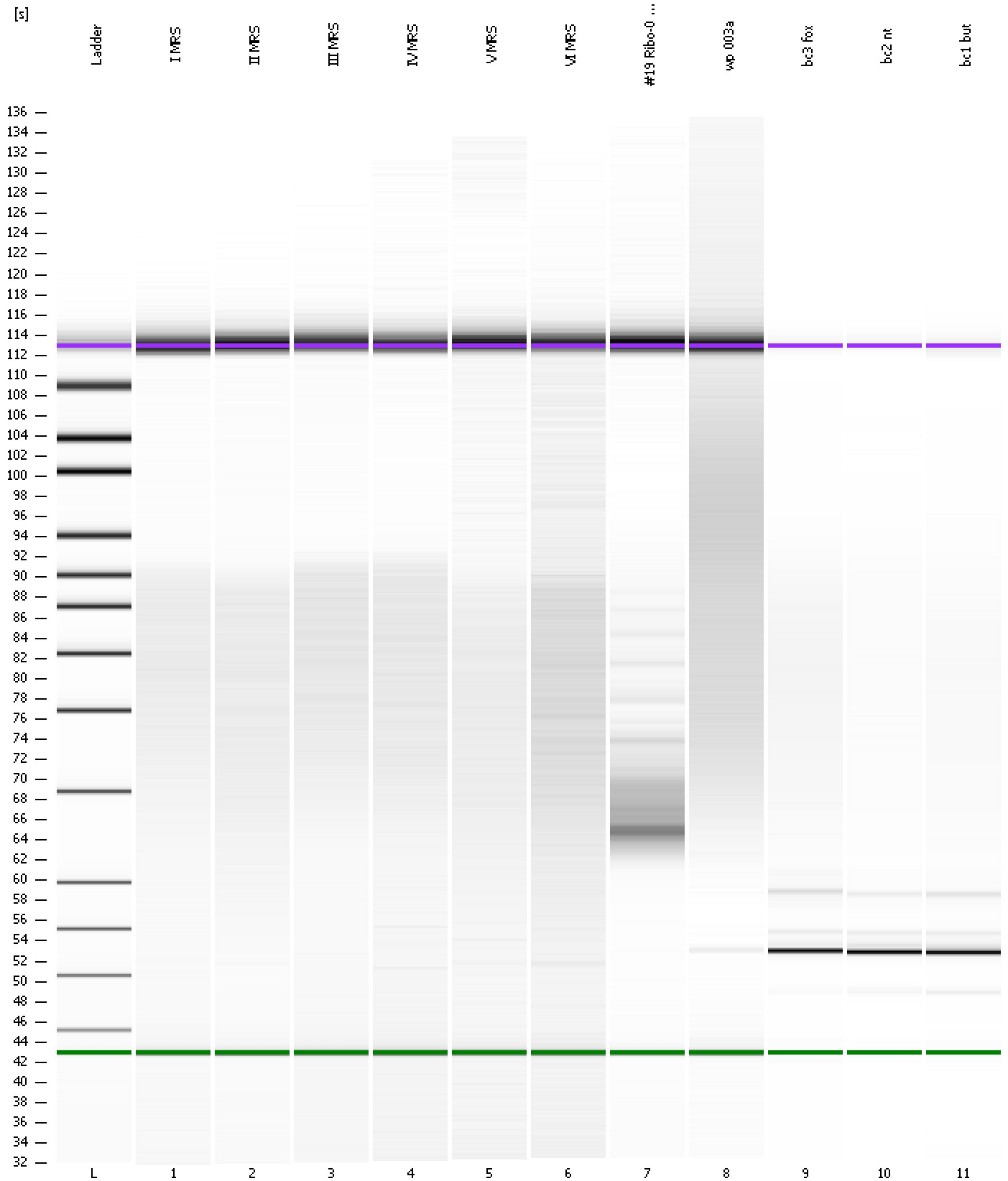
Region table for sample 11 : bc1 but

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area % of Total	Size distribution in CV [%]	Color	
59.83	94.10	443	7,683.5	1,871.81	759.1	36	36.3	

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...nd Settings\Bioanalyzer\2012-06-15\2012-06-15_003_lib19.xad

Created: 6/15/2012 3:17:40 PM
Modified: 6/18/2012 9:19:50 AM

Gel Image



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...nd Settings\Bioanalyzer\2012-06-15\2012-06-15_003_lib19.xad

Created: 6/15/2012 3:17:40 PM
 Modified: 6/18/2012 9:19:50 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		6/15/2012 3:59:01 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2012-06-15\2012-06-15_003.xad)		Instrument	Run		6/15/2012 3:17:46 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		6/15/2012 3:17:46 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		6/15/2012 3:17:46 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		6/15/2012 3:17:46 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		6/15/2012 3:17:46 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		6/15/2012 3:17:46 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		6/15/2012 3:17:46 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1